PROGRESS REPORT

ON

FOREST ADMINISTRATION

IN

BRITISH BURMA

FOR

1882-83.

By Lieut.-Colonel W. J. SEATON and H. C. HILL, Esq.,
CONSERVATORS OF FORESTS,

WITH A REVIEW BY THE CHIEF COMMISSIONER, AND THE ORDERS OF THE GOVERNMENT OF INDIA.

RANGOON:
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1883.

No. 906 F., dated Fort William, the 7th December 1883.

From—A. MACKENZIE, Esq., C.S., Secretary to the Government of India.
To—The Chief Commissioner of British Burma.

I am directed to acknowledge the receipt of Mr. Bayne's letter No. 73—28 M. of the 4th October last, forwarding the Report of Forest Administration in British Burma for the year 1882-83, with your Resolution thereon.

Forest Law.

2. During the year under review the Burma Forest Act, XIX of 1881, came into force with effect from the 1st July 1882, together with a series of Rules passed by you under the provisions of that Act. The forest law now in force in British Burma, having been prepared and passed after some years' experience had been gained in the working of the general Indian Forest Act, may be considered the best forest enactment in India; and it is hoped that under its provisions the forests of British Burma, containing teak and other valuable trees, will be protected against encroachment and trespass, and their productiveness steadily increased. These Government forest estates have, for many years past, yielded considerable quantities of timber and other produce, while the revenue derived from them has now risen to 25 lakhs of Rupees; under improved measures of protection, their usefulness will no doubt be further augmented. His Excellency the Governor General in Council has also specially noticed that a commencement has already been made towards constituting, under Chapter III of the Forest Act, village forests, which will be managed for the benefit of the communities for which they are set aside; and His Excellency in Council hopes that this important subject will continue to receive attention.

Areas.

3. The Burma Forest Act recognizes only one class of demarcated State forests, which are called reserves. The progress made in the constitution of such estates will be seen from the following statement:—

	Area, in square miles.		
	Forest area.	Toungya area.	Total.
Reserved on the 1st April 1882	2,876	398	3,274
Added during the year	153	.....	153
Total on the 1st April 1883 ...	3,029	398	3,427

This area is divided as follows between the two Circles:—.

Circle.	Area, in square miles.		
	Forest area.	Toungya area.	Total.
Pegu	2,440	398	2,838
Tenasserim	589	.....	589
Total ...	3,029	398	3,427

In the previous year an area of 836 square miles was added to the reserves, and the sudden falling off in 1882-83 is due to the introduction of the new Forest Act, which necessitated a change of procedure. The delay was, however, only temporary, as several extensive blocks have been gazetted since the close of the year.

4. Regarding the formation of State Reserves generally, you say that the estimate of 3,474 square miles made by Mr. Brandis, the late Inspector General of Forests to the Government of India, has now been reached, and that therefore proposals for the constitution of further reserves will require to be very carefully considered before they are sanctioned. While concurring with you in maintaining that a careful consideration of all proposals for additional reservation is necessary, it appears to His Excellency in Council that the selection of further reserves should continue as long as valuable teak areas are available, which can be reserved without inconvenience to the people, and which are not likely to be required for the extension of cultivation, especially as the proportion of reserves to the total area of the province is as yet small.

It is noticed that the formation of cutch reserves has been commenced; but the area requires to be considerably increased before the permanent manufacture of cutch can be regarded as placed beyond doubt.

Demarcation.

5. Fair progress seems to have been made in the demarcation of the reserves; but it has not been possible to obtain a clear idea of the state of the work, and I am to ask that the Report for 1883-84 may show, in a tabular form, the length in miles of boundaries actually demarcated, and that remaining to be marked off on the ground.

Forest Surveys.

6. The progress of the forest survey, conducted by the general Survey Department of India, has so far not been satisfactory, owing to the exceptional difficulties which were met with at the commencement of the operations. It has now been decided to survey the forests on a modified 4-inch scale, which will enable the survey party to turn out about 300 square miles annually, at a cost of Rs. 135 per square mile debitable to the Forest Department.

Working-Plans.

7. As it was estimated that the mature teak trees outside the contemplated reserves would only be sufficient for two years' yield, it was decided in the autumn of 1882 to start a provincial Working-Plan Branch, whose task would be to prepare working-plans for the reserves. During the first season the Branch was at work in the Môkka-Bilin Reserve, and for an area of 24 square miles the necessary data were collected. On 4 per cent. of this area all the trees were measured and counted, while the rate of growth of teak was also ascertained.

It appears doubtful to His Excellency in Council whether this branch of forest work has been approached on the right lines. At the rate of 24 square miles per annum, it would take the Working-Plan Branch considerably over 100 years to get round the province; and it is therefore necessary that a more practical method than that hitherto followed should be devised. With this end in view, I am directed to suggest that the Conservator of the Pegu Circle might be instructed to put himself in communication with the Inspector General of Forests.

Moreover, it appears that the maps for the areas to be valued are not yet ready, and without these much of the work of the Working-Plan Branch must be inaccurate and may have to be done over again. I am, therefore, to suggest that the operations of the Branch might with advantage be suspended for one year, during which period the staff could be employed on the demarcation and selection of

reserves. By November 1884 the survey party will have worked a year in advance and be able to supply the Working-Plan Branch with the maps (hand-drawn or otherwise) of 300 square miles of reserves, on the base of which the valuations may be recommenced. The scheme to be devised for the guidance of the Branch should be framed on such lines as to permit working-plans being drawn up for all reserves in Burma in the course of 10 or 12 years. In the meantime the working of the forests should be regulated by Mr. Brandis' proposals, as recorded in his "Suggestions regarding Forest Administration in British Burma, 1881," and summed up in paragraph 230 of that Report.

It is also noticed that the rate of growth of teak is given as almost the same in moist and dry situations, the age of a tree 6 feet in girth being given as 105 years in the former and 110 years in the latter class of localities. I am to point out that these results are not in accordance with what is known on the subject up to date, and they seem to be contradicted by the data obtained by counting the rings on stumps as recorded at page 29 of the Report for the Pegu Circle. According to the latter figures, a very much greater difference exists between the rate of growth in moist and dry localities than that adopted by the Conservator of the Pegu Circle, and before his figures are used in the preparation of working-plans, they should be tested by further enquiries.

Protection of the forests.

8. Only 120 cases of breaches of the forest rules were taken into Court, which, considering the forest area, is a very small number.

The area under fire protection and the results obtained were as follow:—

Area attempted	135,246 acres.
Failures	20,033 ,,
Proportion of failures to area attempted ...	15 per cent.
Cost on the area successfully protected ... per acre ...	1 A. 9 P.
Cost on the area successfully protected ... per square mile, about ...	Rs. 70.

Although the cost is very high, the success is only moderate, and the area burnt includes 228 acres of plantations. On the whole, fire protection is as yet backward in Burma, the area under protection being only 211 square miles, out of a total area of forest reserves amounting to 3,029 square miles. It is hoped that this branch of forest work will receive special attention when the formation of reserves has been completed.

Reproductive measures.

9. The following table exhibits the progress made in planting operations during the year, as exhibited in Form No. 50 attached to the Reports:—

	Area planted, in acres.			Cost, in Rupees.	
	At the commencement of the year.	Added during the year.	Total.	Total from the commencement.	Per acre
Regular plantations ...	3,564	21	3,585	3,24,001	90
Successful Toungya plantations ...	3,886	651	4,537	42,346	9
Indifferently stocked Toungya plantations and other cultural operations.	2,650	449	3,099	24,853	8
Total ..	10,100	1,121	11,221	3,91,200	35

Owing to a reclassification of the areas since last year, the entries in the first column do not agree with those shown at the close of 1881-82. The additions made during the year, though considerable,

are less than those of the previous year. It is noticed that a commencement has been made to reproduce cutch in toungyas, and that the sowing with teak of areas on which the bamboos had died has proved a success. It is hoped that planting operations in the Tenasserim Circle will soon prove as successful as those in the Pegu Circle.

Girdling operations.

10. The trees girdled during the year were as follow :—

Circle.	Teak.			Other trees.
	Inside Reserves.	Outside Reserves.	Total.	
Pegu	3,690	11,294	14,984	2,657
Tenasserim	1,021	1,591	2,612	3,538
Total ...	4,711	12,885	17,596	6,195

The number of teak trees girdled is 1,596 in excess of Mr. Brandis' forecast, the whole excess having occurred in the Tenasserim Circle. Sanction was given to girdle 2,500 trees outside reserves in that Circle, but, owing to a mistake on the part of the Officer entrusted with the work, 1,021 of the trees killed were standing inside the Mithawé Reserve.

His Excellency in Council is of opinion that Mr. Brandis' forecast should not be exceeded until the formation and demarcation of the principal reserves in both Circles have been completed, and until considerable progress in the survey and preparation of working-plans has conclusively shown that the annual yield may safely be increased. The girdling of over 1,000 trees in the Mithawé Reserve, which is reported to have done considerable injury, seems to have been due to want of care on the part of the Divisional Officer, Mr. Palmer, who, it is presumed, has been called upon to explain his conduct in the matter.

Yield of the forests.

11. The yield of the forests is given as follows :—

	Timber extracted, in tons.		
	Teak.	Other timber.	Total.
By Government Agency	40,272	8,440	48,712
By purchasers and under trade permits ...	3,642	32,904	36,546
Under free grants	85	8,079	8,164
By lease-holders and others	4,327	748	5,075
Total ...	48,326	50,171	98,497
Outturn of 1881-82	31,246	87,171	118,417
Increase in 1882-83	17,080	.....	.....
Decrease in ditto	.....	37,000	19,920

There has been an increase of 55 per cent. in the outturn of teak and a reduction of 42 per cent. in that of other woods, or a falling off in the total outturn of 17 per cent. These large fluctuations have

not been satisfactorily explained in the Reports. If the high rates ruling during the year stimulated the extraction of teak, it is not understood why the extraction of other timber should, at the same time, have fallen off.

Import and export of timber.

12. As far as can be gathered from the Reports, the following quantities of timber were imported and exported during the past two years :—

Year.	Timber imported.	Timber exported.
1881-82	154,290 tons.	133,751 tons.
1882-83	140,604 „ and 58,876 pieces.	151,151 „

There has apparently been an increase in both imports and exports. The value of the exports is estimated at Rs. 1,40,46,610.

Financial results.

13. The financial results of the year compare as follow with those of the previous year :—

Year.	Receipts.	Charges.	Surplus.	Proportion of Surplus to Receipts, in per cent.
	Rs.	Rs.	Rs.	Rs.
1881-82	22,31,804	11,50,222	10,81,582	48
1882-83	25,03,896	12,28,955	12,74,941	51
Increase	2,72,092	78,733	1,93,359	.....

These results are very satisfactory, especially if it is remembered that the reduction of the duty on foreign timber represents a loss of revenue amounting to Rs. 2,63,504. The large receipts are chiefly due to the high price of teak prevailing during the year.

14. On the whole, satisfactory progress has been made during the year, and His Excellency in Council notices that you are satisfied with the manner in which the Conservators, Colonel Seaton and Messrs. Ribbentrop and Hill, performed their duties.

15. In conclusion, I am to invite your attention to the appended list of discrepancies which have been noticed in the statements attached to the Reports.

Appendix shewing the discrepancies noticed in the Statements appended to the Reports of Forest Administration in British Burma for the year 1882-83.

Form No. 49.

(Reserved Forests.)

The exact equivalent of the 1,561,903 acres of Reserved Forests in the Pegu Circle is 2,440 (instead of 2,439) square miles.

Form No. 50.

(Teak and other Plantations.)

The aggregate cost incurred during the year in the Tenasserim Circle is given as Rs. 487, while Rs. 3,985 are entered under A. viii. d. in Form No. 53 (Summary of Revenue and Expenditure). [*Vide* paragraph 259 of the Forest Department Code.]

Form No. 51.

(Forest tracts protected from fire.)

The Grand Total for British Burma of the columns "Area attempted to be protected" and "Area actually protected" should be, from the actual figures given, 135,246 (instead of 135,046) acres and 115,213 (instead of 115,013) acres, respectively.

Form No. 52.

(Prosecutions for breaches of Forest Rules.)

The total of Convictions and Acquittals during the year in the Tenasserim Circle is shown as 63 cases and 74 persons, whereas it should be 74 cases and 87 persons. Accordingly, the Grand Total for British Burma should be 120 (instead of 109) cases and 175 (instead of 162) persons.

Form No. 60.

(Timber and other produce received from forests in Sale Depôts.)

The total cubic feet entered against the Ataran Division, in the Tenasserim Circle, is shown as 238,034; but the addition of the figures given brings this total to 238,534, and the corresponding Grand Total for that Circle is consequently 1,181,079 instead of 1,180,579. Again, in the "Abstract of the Divisions", the equivalent in cubic feet of the 34,356 teak logs, pieces, and crooks is entered as 960,055; whereas, according to the details given, it should be 960,555, which latter figure brings the total of the column to 1,181,079 cubic feet (as above).

Form No. 62.

(Timber and other produce cut or collected by Government Agency and brought to Sale Depôts or sold locally.)

According to paragraph 266 of the Forest Department Code, the entries in this Form under "Received from forests in Depôts" should agree with the similar entries in Form No. 60; but it has not been possible to establish this relation throughout.

Form No. 63.

(Timber and other produce cut, collected, and removed from the forests by consumers or purchasers, including pasture.)

The Grand Total for the Pegu Circle under "Amount actually realized during the year" is entered as Rs. 2,21,701, while the corresponding total of Revenue head II in Form No. 53 is Rs. 2,22,239.

Form No. 65.

(Value of timber and other produce at Sale Depôts.)

The Grand Total of "Value on hand at close of the year" is entered as Rs. 1,63,191*; whereas it should be, from the addition of the figures given, Rs. 8,91,185. Similarly, the Grand Totals of the columns "Difference in value in favour of the year" and "Difference in value against the year" are Rs. 3,53,308 (instead of Rs. 11,161*) and Rs. 64,729 (instead of Rs. 2,367*), respectively.

* These figures relate to live and dead stock only; not to timber stock.

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REPORT

ON

THE FOREST ADMINISTRATION

OF

BRITISH BURMA

FOR

The year 1882-83.

RANGOON:

PRINTED AT THE GOVERNMENT PRESS.

1883.

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RESOLUTION

ON THE

FOREST ADMINISTRATION

OF

BRITISH BURMA

FOR THE YEAR 1882-83.

Extract from the Proceedings of the Chief Commissioner, British Burma, in the Forest Department,—No. 28M., dated the 26th September 1883.

READ—

Reports of Conservators on the administration of forests in the Tenasserim and Pegu Circles for the year 1882-83.

RESOLUTION.—The reports for both circles were submitted with punctuality this year, but a good deal of time was again occupied in preparing the amalgamated figured statements to accompany the reports. A copy of the complete reports and returns in print was received on the 10th August. This is an improvement on the previous year.

The Burma Forest Act and the Rules framed under it came into force on the 1st July 1882. The rules were found to require amendment in various particulars, and revised rules embodying these amendments were published on the 10th January 1883. Many thousands of copies of the Act and Rules, both in English and Burmese, have been distributed through the country.

Forest work of the year; general results.

2. An addition of 98,240 acres, or 153½ square miles, was made to the area of reserved forests during the year. This area, for the reason given further on, was very much less than that reserved in the preceding year. Fire protection has not been so successful as could have been desired, especially in the Tenasserim Circle: 115,013 acres in all were successfully protected against 114,076 acres in 1881-82. The reproduction of teak by the taungya system was again carried on, and 654 acres were added to the area under this form of cultivation, which now amounts to 5,093 acres. The number of teak trees girdled was 17,596 and of other kinds 6,195 compared with 18,850 teak and 5,359 of other kinds in 1881-82. There were extracted from the forests during the year 98,497 tons of all kinds of timber, or 19,920 tons less than in 1881-82. The quantity of teak extracted was 48,326 tons as compared with 31,246 tons extracted in the previous year The gross revenue of the Department for the year from all sources was Rs. 25,03,896, or Rs. 2,72,092 in excess of that of 1881-82, owing chiefly to the unprecedentedly high rates at which the price of teak timber remained throughout the year. The total expenditure was Rs. 12,28,955 as compared with an expenditure of Rs. 11,50,223 in the previous year.

Reservation of Forests.

3. At the beginning of the year the total area of sanctioned reserves amounted to 2,876 square miles of forest area and 398 square miles of taungya area in the occupation of Karens. The forest area was increased during the year under review by the addition in the Tenasserim Circle of 153½ square miles, the area in the Pegu Circle remaining as before.

The total area of reserved forests in the province on the 31st March 1883 was as follows:—

	Area in square miles.		
	Forest area.	Taungya area.	Total
Tenasserim Circle	589½	..	589½
Pegu Circle	2,440	398	2,838
Total ...	3,029½	398	3,427½

Additional areas, aggregating 514 square miles which had been reported on by the Forest Settlement Officers, were not actually gazetted when the year closed, for the reason given below. These areas were—

		Estimated area.
Pegu Circle ...	(1) Tarokma and Inma reserve (Tharrawaddy division) ...	38
	(2) Paunglin reserve (Rangoon division)	124
	(3) West Swa, Lônyan, Sabyin, Myohla, Binbye, and Kanaung reserves (Toungoo division)	246
	(4) Kyundaung extension (Shwegyin)	6
	Total ...	414
Tenasserim Circle...	(5) Mintha reserve (Tavoy district)	100
	Total square miles ...	514

The proposals for the reservation of several of these tracts were submitted just at the time the new Forest Act came into force, and as these proposals had not been finally sanctioned on the 1st July 1882 it become necessary to follow, in regard to each proposed reserve, the procedure laid down in Chapter II of the new Forest Act. The necessary steps were accordingly taken to carry out the provisions of the Act, and the year had closed before there was time to resubmit the proceedings. In the case of others the new procedure was observed from the first, but it was not practicable to submit the proposals for reservation within the year. The cases of the Tarôkmaw and Inma, Paunglin and Mintha reserves have since been disposed of and the reserves notified.

In addition to these proposals for teak reserves, measures were also taken for the formation of cutch reserves in the Thayetmyo district over an area of about 6,600 acres. The report of the Special Forest Settlement Officer appointed to this duty has not yet reached the Chief Commissioner.

The preliminary selection of several suitable tracts for teak reserves, both in Tenasserim and Pegu, was made during the year. In the Tavoy district two areas, aggregating 780 square miles, await examination by a Civil Officer. Two small areas have also been selected in the Salween division, and "a particularly valuable teak-producing tract" of some 20 square miles in the Toungoo district. Numerous small areas have been selected for cutch reserves. Rapid progress

has been made during the past few years in the matter of reservation. The area, 3,474 square miles, suggested by Dr. Brandis in 1881 as the maximum area required, has already been exceeded and proposals for further reserves will require to be very carefully considered before they are sanctioned. Every effort has been hitherto made to avoid interference with the extension of cultivation and to deal as considerately as possible with the Karens and others whose interests are affected by the constitution of reserves, but it is difficult to ascertain the wants and necessities of the forest tribes who can hardly be expected to understand how to protect themselves, and the full effect of the reserves can only be gradually ascertained. In the meanwhile it is undesirable that further large areas should be taken up where such a course is not immediately and urgently required to save valuable teak-producing areas from destruction.

Village forests.

4. Chapter III of the new Forest Act provides for the constitution of village forests, and section 33 empowers the Chief Commissioner to make rules for the management of such forests. Draft rules have been prepared and circulated for opinion and arrangements have been made for a complete examination of the headquarters subdivision of the Hanthawaddy district and of the Kyauktan subdivision of the Pegu district with a view to ascertaining what village forests are required by the inhabitants and what villages should benefit by each. No village forests have as yet been sanctioned in this province.

Demarcation of boundaries.

5. In the Tenasserim Circle Rs. 691 were expended in finally demarcating the boundaries of eight reserves of an aggregate area of 193* square miles. The cost of demarcation was therefore at the rate of Rs. 3-9-3 per square mile. Good progress was also made in the Pegu Circle. The outlay on the area finally demarcated was Rs. 5,071, but the extent of that area has not been given in the report.

Forest surveys—Working Plans Division.

6. The sanction of the Secretary of State for India was given in January 1883 to the organization of a separate working plans division in the Pegu Circle. The sanction extends to 31st March 1885. Operations were begun in the Môkka-Bilin reserve at the close of November 1882 and details of the work accomplished are given at page 28 and Appendix H of the report. Some useful calculations were made with regard to the rate of growth of teak. The conclusion arrived at was that a girth of 6 feet is attained in from 105 to 110 years. Dr. Schlich in 1868 estimated 160 years as the period for attaining the same girth in a forest subject to annual jungle fires, and Dr. Brandis in 1880 estimated that in a forest protected from fire a teak tree might be expected to attain a girth of 6 feet in 80 years. At page 4 of the Pegu Report an interesting account is given of the work done by the Forest Survey party. The progress made has not been very great, but the work was carried on under many disadvantages. For the future a modified 4-inch scale survey will be adopted. This will reduce the cost of the survey from Rs. 375 to Rs. 135 per square mile and will enable the survey party to get through the work far more rapidly than if the original scheme had been adhered to.

* Includes the Dagwin reserve, area 10 square miles, not yet actually sanctioned

THE PROTECTION OF FOREST RESERVES.

7. The cost of fire-protection in the Tenasserim Circle for the year amounted to Rs. 1,793 For this outlay 50,240 acres out of 61,914 acres were successfully protected. A number of fires occurred, but only two of them were severe. In one case three square miles of forest were damaged, the progress of the fire being aided by the presence of much kaing grass. In the other case three fires broke out one after the other in the same reserve (West Mepalè) with the combined result that 15, out of an area of 30, square miles were burnt down. This disaster is stated to have been due to the local officers having attempted to protect too large an area. It may be noticed however that the area attempted was no larger than that attempted in the previous year, when the measures for keeping out fire were successful over the whole area except some 1,280 acres. In the Pegu Circle the fire-protection of 73,132 acres was attempted. It failed in regard to 11 per cent. of this area, fire having passed over 8,359 acres. Fifteen fires in all occurred, but in no case was serious damage done. Some 228 acres of plantation only, and a part of the area planted in the previous year under flowered bamboo happened to be within the spot over which the fires passed. The forest survey coolies in Tharrawaddy are blamed for the four fires which broke out in the Môkka-Bilin reserve. Several are set down to malice or to game hunters, and the rest would appear to have been caused by high winds springing up when the new taungya-grounds were being fired.

During the year the Conservator represented that more space than the existing firetraced reserves in the Pegu Circle afforded was needed for the extension of the teak taungya system. Sanction was accordingly given for the extension of fire-protection operations to the East Swa reserve in the Toungoo division, and it is satisfactory to find that the whole area of the reserve (less 7 acres) was successfully protected during the past dry season at a cost of one anna and a quarter per acre.

8. The following table shows the results of fire-protection operations in the province during each of the past five years :—

Years	Area in acres		Cost.		
	Attempted.	Successfully protected.	Rs.	A.	P.
1878 79	74,867	71,822	9,815	9	0
1879-80	98,637	96,418	8,836	13	6
1880-81	96,218	76,858	10,577	2	8
1881-82	115,982	114,076	11,857	1	6
1882-83	185,046	115,013	12,490	1	9

The average cost of fire-protection per acre for these five years has thus been about one anna and ten pies per annum. The cost of fire-protection in 1882-83 exceeded that in 1881-82 by 9 per cent. The area which it was attempted to protect was increased 16 per cent., but the area successfully protected was only 1 per cent. more than that successfully protected in 1881-82. It is not stated whether any progress was made in the planting up of the boundaries with evergreen trees in the manner recommended by the Government of India in the

fourth paragraph of their review of last year's report. Enquiry will be made on this subject.

REPRODUCTION AND IMPROVEMENT OF FOREST GROWTH.

Teak plantations.

9. The three regular teak plantations in the Tenasserim circle remained of the same area as before, namely, 23 acres. They have cost from first to last Rs. 22,319. No outlay was incurred on them during the year. Dr. Brandis, in his "Suggestions on Forest Administration in Burma," is opposed to any further extension of teak plantations by direct departmental agency now that it has been shown that cultivation can be successfully carried out by the taungya system and at so much less cost. At Magayi however 16 acres were added to the area of the regular plantations during the year by means of the coolies employed on the regular establishment at a cost of about Rs. 13 an acre. The steam tree-feller was employed in clearing part of this ground. If Shan labourers could be got in greater numbers, the still available ground at Magayi would be fully planted up in a few years, and if the work can be done, and done thoroughly at a cheap rate, there seems no reason why it should be checked, provided effective fire-protection goes hand-in-hand with it. The area of the Magayi plantations is now 1,527 acres. In the Pyunchaung plantations (Toungoo division) Rs. 732 were expended in adding 5 acres to the area with the view of teaching the Karens how to plant teak in taungyas. The Toungoo Karens are said to have a prejudice against the system, as they consider that it will ultimately restrict the area on which taungyas may be cut. As it is improbable that the area of land planted with teak will be large enough to have an appreciable effect in this direction, it may be hoped that the prejudice will disappear,

Taungya teak cultivation.

10. From various causes teak cultivation on the taungya principle made but little advance in the Tenasserim Circle, only 43 acres well stocked with plants and 41 acres indifferently stocked having been added to the already existing area. In Pegu better progress was made, although the area planted (570 acres) was 65 acres less than in the previous year and cost Rs. 3 an acre more. The 43 acres in Tenasserim cost Rs. 477, or about Rs. 11 an acre, while the work in Pegu cost Rs. 9-14-6 an acre. The Pegu Conservator hopes gradually to be able to add about 1,200 acres per annum to the taungya-plantation area in accordance with Dr. Brandis's views, and it is hoped that the work in Tenasserim will keep pace proportionately with the work in Pegu. The experiment of planting up with teak areas covered with flowering bamboos in the Bwet and Nyanlè reserves has proved a complete success, and during the year 400 acres (150 in Bwet and 250 in Nyanlè) were treated in this way and are thoroughly well stocked. The areas planted in 1881-82 in the same reserves (250 acres in Bwet and 200 acres in Nyanlè) were thoroughly weeded at a cost of Rs. 895 and Rs. 465, and the plants are growing rapidly but will have to be weeded for some years to come.

Experimental cutch plantations.

11. The reproduction of cutch by the taungya method has not made much progress yet. In the Chaungzauk reserve 38 acres were well stocked with cutch at a cost of Rs. 9-3-4 an acre. In Tharrawaddy the operations last year failed, but will be repeated this season. An attempt was also made to cultivate cutch in dead bamboo forest, and

in one instance an area of 150 acres did well until attacked by an insect which gnawed through the plants just below the surface. A small area in the Bwet reserve fared better.

12. In accordance with the orders of the Government of India contained in letter No. 845F., dated the 26th October 1882, form 50 attached to the present report has been prepared so as to show fully stocked taungya-plantations separately from those where the operations have only partially succeeded.

Minor cultivation.

13. There is very little to be said regarding the cultivation of exotic plants and trees. The experiments have been continued as in former years with indifferent success. At Mergui the young para India-rubber trees in the forest office compound now number only seven, the eighth having been killed by a tree falling on it. Cuttings were taken, but they have all died except one. The plants in the Mergui plantation have fallen from 60 to 54. None of the older trees have yet flowered.

Hevea braziliensis.

White-ants attacked the *ceara* rubber plants at Mergui and destroyed a great number of the older trees, eating through the roots and then finding their way up through the centre of the stem without being observed. It is thought that the climate of Mergui is too moist for the plants. There remain 530 young trees besides 217 cuttings and about 1,000 seedlings, and these are looking healthy. The few *ceara* plants at Magayi are thriving. At Magayi the number of plants of *Chevanessia esculenta* increased from 39 to 57.

Manihot glaziovii.

Chevanessia esculenta.

Mahogany.

14. The cultivation of the mahogany tree has been successful in the Pegu circle, where the number has increased from 90 to 230. Insects have left them alone and the plants raised from seed got from the trees at Akyab are said to be very strong. The trees in the Tenasserim Circle have not done so well. They have suffered from the attacks of the "borer" beetle, and a large number have died.

Coffee.

15. There are now 317 coffee plants growing in the Pyunchaung reserve, Toungoo, but they are in a somewhat exposed position, and the last hot season tried them severely.

Cinchona.

16. On the maintenance of the Thandaung cinchona plantation Rs. 1,851 were spent during the year, chiefly in keeping down weeds, thinning the plants, and filling up blank spots. From the thinnings 507lbs. of bark were obtained and sent to England, where it realized prices ranging from 6½*d.* to 1*s.* 2*d.* a pound only. Unfortunately most of the cinchona plants growing at Thandaung areof the *Succirubra* a species which produces a bark of small value and in little demand.

GIRDLING.

Girdling operations.

17. In the Tenasserim Circle 2,612 teak trees and 3,538 trees of other sorts were girdled during the year. The number of teak trees for the girdling of which sanction had been given was 2,500 *outside* reserves, but, owing to an unfortunate blunder on the part of the

officers entrusted with the work, 1,021 of the trees killed were standing inside the newly-formed Mithawè reserve, the boundaries of which were not observed.

In the Pegu Circle, where the girdling of 16,000 teak trees had been sanctioned, 14,984 teak trees and 2,657 trees of other sorts were killed during the season. Of the number girdled, 11,294 were growing outside and 3,690 inside reserved forests. It is estimated that there are still a sufficient number of trees left outside reserves to provide girdling work for two seasons more, by the end of which time the operations of the Working Plans Division ought to have made considerable progress.

REVENUE.

Receipts.

18. Notwithstanding a loss of Rs. 2,63,504 owing to the reduction of the duty on foreign timber, the gross receipts of the year 1882-83 amounted to Rs. 25,03,896, or Rs. 2,72,092 more than those of the preceding year. The receipts were derived as follows :—

		1881-82. Rs.	1882-83. Rs.	Increase or decrease. Rs.
From timber and other produce removed from the forests by Government agency		15,55,248	20,23,913	+ 4,68,665
From timber and other produce removed from the forests by consumers or purchasers:	Timber	1,19,181	1,66,269	+ 47,088
	Firewood and charcoal .	1,552	2,696	+ 1,144
	Bamboos	3,857	6,035	+ 2,178
	Grazing and fodder grass	132	173	+ 41
	Other minor produce ...	52,094	80,179	+ 28,085
Confiscated, drift, and waif wood		1,58,360	1,28,224	– 30,136
Duty on foreign timber and other foreign produce ...		3,32,377	69,873	– 2,63,504
Miscellaneous		8,503	27,034	+ 18,531
	Total ...	22,31,804	25,03,896	+ 2,72,092

The chief cause of the increase is of course the high price realized by the sale of teak timber, of which a considerably larger quantity was disposed of than in the year before and at higher rates. The selling rates in the home market were at the beginning of the year from £13 to £15 and at the end of the year from £14-10 to £16 a ton.

Expenditure.

19. The expenditure of the year amounted to Rs. 12,28,955 and varied from that of 1881-82 as follows :—

	1881-82. Rs.	1882-83. Rs.
(A) Conservancy and works ...	9,08,974	9,73,746
(B) Establishment	2,41,249	2,55,209
Total ...	11,50,223	12,28,955

20. The net revenue of the year was thus Rs. 12,74,941. In both circles the cost of extracting certain timber had not been paid for when the year closed, otherwise the charges for the year under (A) would have been considerably higher. There is nothing in the outlay of the year calling for special notice. Rs. 11,000 were expended on account of the cost of a new forest bungalow at Toungoo.

Timber extracted from the forests.

21. The quantity of timber of all kinds removed from the forests during the year both departmentally, by purchasers and permit-holders, and by leaseholders was—

	Teak.	Other kinds.	Total.
	Tons.	Tons.	Tons.
By Government agency	40,272	8,440	48,712
By purchasers and under trade permits	8,642	32,904	36,546
Under free permits	85	8,079	8,164
By leaseholders	4,327	748	5,075
Total ...	48,326	50,171	98,497

There is a large increase in the quantity of teak brought out over that of the previous year, when the outturn was 31,246 tons. Of other timber, the quantity shewn in the returns as having been removed was only a little more than half of the quantity brought out in 1881-82. This is explained, as regards timber extracted by Government agency, by the fact that in 1881-82 some 17,000 tons of pyinkado were supplied to the railway whereas in 1882-83 none was supplied, and as regards timber extracted by private persons by the fact that under the new rules the number of reserved trees has been reduced from 16 to 6 and that no record is now kept of unreserved timber cut for use in the neighbourhood of the forest for domestic purposes. The unprecedentedly high rates at which teak continued to be sold offered greater inducements than usual for sending to market timber of indifferent size and quality, the removal of which from the forests in ordinary times would not have been profitable.

Drift timber.

22. In the Tenasserim Circle 6,015 logs of sea and river drift timber, and on the rivers of the Pegu circle 9,741 logs were salved during the year. Of these 9,909 logs were made over to claimants on payment of salvage. The receipts under this head were less than in the previous year owing to the Bombay Burma Trading Corporation having been permitted to salve timber on the Sittang at a reduced rate. The Government has no wish to make a profit out of the salvage of drift timber and enquiry is now being made as to whether the present charges are more than sufficient to cover expenses.

Imports of teak from beyond the frontier.

23. The high price of teak, assisted no doubt by the reduction in the import duty, caused a large increase in the quantity of timber sent down to Moulmein from the forests beyond Toungoo and the Siamese frontier. The number of logs and pieces received at Kado was 116,818, representing 140,604 tons, or 11,314 tons more than were received in the preceding year, a larger proportion than usual being of superior quality. By the Irrawaddy and Sittang about 15,637 and 35,126 logs respectively were imported. Here, too, the increase over 1881-82 is very great.

Duty at Kado.

24. On the 1st January 1883 the *ad valorem* duty on timber cleared at Kado, which had been reduced a year before from 7 per cent. to 1 per cent., was again further reduced to ½ per cent., which rate has been found sufficient to cover the expenses of maintaining the depôt.

MISCELLANEOUS.

Supplies of timber to departments, &c.

25. From Moulmein some padauk and pyinma timber was supplied to the gun-carriage factories at Madras and Bombay and some pyinkado railway-sleepers, and scantlings for tea-boxes, were shipped to Calcutta. There is very little profit on the sleepers. At Rangoon 10,500 pyinkado sleepers were supplied for the street tramways now being laid down there, while a large number of sleepers of teak, pyinkado, pyinma, and other timbers, were delivered for the Sittang Valley Railway.

Exports of teak.

26. The quantity of teak exported from the province to all parts of the world, including India, during the year was as follows :—

	Tons.	Value.
		Rs.
From Moulmein	111,648	1,01,37,354
From Rangoon	89503	89,09,256
Total ...	151,151	1,40,46,610

Steam-launches.

27. Each Conservator now has a steam-launch for his use, and the convenience is very great. The steam tree-feller obtained from England last year has not proved so successful as was expected. Some of its defects can be remedied, and it is as yet too soon to condemn it. A number of clearances to admit of the passage of timber rafts were made in the Tavoy river and the Meke stream by means of dynamite. In the Sittang below Toungoo a number of snags were cleared away by a special party employed for the purpose.

Steam tree-feller

Removal of obstructions in streams.

28. Seven bags of teak seed were forwarded in May 1882 to Her Majesty's Chief Commissioner, Seychelles, for experimental cultivation. Seeds of various kinds have also been forwarded to Singapore and Kurseong.

Supply of teak seed to the Seychelles.

29. The number of forest apprentices from Burma at the Dehra Dún forest school is five as before, it being found difficult to obtain suitable candidates.

Forest apprentices.

30. In the Pegu circle one officer was invalided home in consequence of severe fever. Another, Mr. Harold Reed, who had only arrived in the country in December 1882, died in April following from sunstroke, due to injudicious exposure to the sun when working in the forests. The health of both the controlling and subordinate staff was otherwise generally good.

Health of officers and forest establishments.

31. The Chief Commissioner's thanks are due to Colonel Seaton, Mr. Ribbentrop, and Mr. Hill for their efficient supervision of the Department during the year. He is pleased to observe that the Conservators are generally satisfied with the work of their subordinates.

Services of officers.

By order of the Chief Commissioner,

E. S. SYMES,

Offg. Secretary.

REPORT

ON

FOREST ADMINISTRATION

IN

THE TENASSERIM CIRCLE

For the year 1882-83,

BY

Lieut-Colonel W J SEATON, Conservator of Forests.

CHAPTER I.

Area and Boundaries.

Prefatory remarks

The addition of 153½ square miles to the area of sanctioned State reserves and final demarcation of boundaries of eight reserves constitute the progress made in forest demarcation work during the year under review. In the case of two proposed reserves, aggregating 110 square miles, reservation was approved of by the local Government, but final sanction was deferred pending additional enquiries. Owing to the services of a Civil Officer not being available no forest settlement work was undertaken in the proposed Tavoy river and Ye river reserves, aggregating 780 square miles, and for almost similar reasons officers not being available no additional areas were selected. The following is a summary of the work accomplished up to date since 1870-71, when the first reserves were sanctioned :—

	Area of teak and mixed forest.	Area of mixed forest only.	Total.
	Square miles.	Square miles.	Square miles.
(a) Area sanctioned and finally demarcated— 1870 71 ... 17 square miles; 1877 78 ... 25 ditto; 1878 79 ... 208 ditto; 1879 80 ... 9 ditto; 1880 81 ... 128 ditto; 1881 82 ... 49 ditto; 1882-83 ... 153½ ditto	574½	15	589½
(b) Areas approved and awaiting final sanction ..	10	100	110
(c) Areas examined and awaiting sanction as village reserves	...	17½	17½
(d) Areas selected and awaiting examination by Forest Settlement Officer	...	780	780

Demarcation in the case of teak localities may be said to be very near completion, as only two or more small outlying areas remain to be included in the East and West Salween divisions. There is a considerable area in the Ataran district, but having been leased out till 1896 its reservation at present would be altogether premature. Of mixed forest without teak, some additional areas have to be taken up as padauk reserves ; also some areas in the Haungdaraw and Ataran valleys as reserves to maintain the supply of more valuable timber and so meet the trade wants of

the future. There are also large areas to the south at the sources of the Tenasserim river to be dealt with, but the question of reservation will depend in a great measure on the feasibility of removing the rocky obstructions in the great Tenasserim river and its large tributaries at an expenditure commensurate with the revenue likely to be realized from the forests. Finally there will be the work of taking up village forest reserves in the more populous districts and extending the work as may be necessitated by the increase of population in the interior.

Increase in State reserves.

2. During the year the local Government's sanction was received to the final demarcation as State reserves in the East Salween division of the Baledu, Gawlè, and Ônkarein proposed reserves, aggregating 113½ square miles, and of the Pachaung proposed reserve, 40 square miles in area, in the West Salween division. By these additions the total area of State forests in this circle was increased from 436 to 589½ square miles.

Preliminary approval of reservation of certain areas.

3. The preliminary approval of the local Government pending further enquiries was received to the reservation of 17½ square miles of the Martaban proposed reserve, Salween division, and of the Dagwin proposed reserve of 10 square miles in the West Salween division.

Areas proposed for reservation.

4. The boundaries of the Upper Tavoy proposed reserve of 460 square miles and the Ye proposed reserve of 320 square miles were notified in accordance with section 6, Burma Forest Act, and the necessary proclamations issued by the District Civil Officers nominated *ad interim* Forest Settlement Officers, but at the commencement of the working season the services of a Civil Officer were not available for the examination of these reserves. The Mintha proposed reserve, 100 square miles in area, in the Tavoy district, which was reported on by a Forest Settlement Officer during the previous year, was renotified and the proclamation required by section 7 of the Burma Forest Act issued by the District Civil Officer to bring the procedure into accordance with the Act.

Final demarcation of boundaries.

5. The boundaries of the Ônkarein, Gawlè, Baledu, South Myauadi, Mithawe, and Winsaw reserves in the East Salween division and of the Pa stream and Dagwin reserves in West Salween division were finally demarcated. The expenditure incurred on the demarcation work of the year amounted to Rs. 690-14-0.

CHAPTER II.

Surveys, Working Plans, and Annual Plan of Operations.

Survey of the Upper Tavoy forests.

6. Linear valuation surveys, supplemented with a careful route survey with compass and chain, were executed by Mr. Aplin, Officiating Deputy Conservator, over an area of 1,773 acres in the Upper Tavoy forests, and with the surveys of the previous year make up a total area of 3,308 acres in these forests, on which the more valuable trees have been counted. The total length of these surveys was 206 miles, the aggregate of the numerous routes and forest tracks followed by Mr. Aplin and estimated to extend over an area of about 300 square miles of these forests. The results are noted in Appendix H, and from the route survey a detailed map will be compiled of the Upper Tavoy forests.

Working plans and annual plan of operations.

7. A carefully detailed topographical survey of the reserves for the framing of regular working plans has not yet commenced in this circle. In the meantime, according to the plan of annual operations originally suggested by the Inspector-General of Forests and approved by the local Government, the East and West Salween divisions have been each divided into five blocks, which are to be thrown open in succession for a period of five years for the girdling of all I class marketable teak trees both within and without the reserves, selection within the reserves being subject to favourable reproduction and presence of seed-shedding trees: thus a period of 25 years will be given for the extraction of all I class marketable teak trees throughout these forests, sufficient, it is assumed, within

which to allow of trees of the II class to attain I class size before girdling is resumed in any one part. When Mr. Aplin's map of the Upper Tavoy forests is completed, it will be possible to devise an annual plan of operations for the pyingado and other valuable forests in that locality.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

General Remarks.

Forest Legislation Act, No. XIX of 1881.

8. In the history of forest conservancy, special interest always attaches to the year in which important legislative measures have been introduced, and hence the year under review will always hold a prominent place in the annals of forest conservancy in British Burma by reason of a new Forest Act having come into force on the 1st July 1882. The most prominent features in the Forest Act in question, namely, the Burma Forest Act of 1881, are the increased powers conferred on the local Government, special provision for constituting and dealing with reserved forests, both State and village reserve forests, reservation of all teak trees on land not included in such forests, increased penalties for forest offences, and repeal of Act XIII of 1873, Regulation IX of 1874, so far as it relates to Acts VII of 1865 and VIII of 1869, and the Forest Rules of 1865.

Rules, &c., published under the Burma Forest Act.

9. On the 10th January 1883 the following notifications, rules, and departmental directions were published in *British Burma Gazette* notification No. 5, declaring the undermentioned trees to be reserved trees :—

Amherst and Salween Hill Tracts districts.	*Tavoy and Mergui districts.*
Thitka.	Thitka.
Thitgado.	Thitgado.
Padauk.	Padauk.
Thingan.	Thingan or magale.
Kaungmu.	Karawe.
Pyinma or lèzani.	Anan.
	Kanzaw.

Notification No. 6, directing a duty of ½ per cent. *ad valorem* to be levied on all foreign timber floated down the Salween and its tributaries.

Notification No. 7, declaring all unmarked timber on certain areas to be the property of Government.

Notification No. 8, exempting certain timber of the unreserved kinds from the provisions of notification No. 7.

Notification No. 9, exempting all timber on which duty has been paid from the provisions of section 46 of the Burma Forest Act.

Notification No. 10, fixing fines for cattle impounded in all fire-traced reserves.

Notification No. 11, rules relating to hunting and fishing in reserved forests and kindling of fire within two miles of such forests, and rules relating to reserved and unreserved trees and forest produce; also rules relating to control of timber in transit, to the salving, collection, and disposal of drift, stranded, or other timber, to the powers and duties conferred or imposed on Forest Officers, and to the rewards to be awarded to informers. Likewise directions for guidance of Forest Officers and for the information of the public on the following matters :—

Camp fires near, and carrying of fire through, reserved forests, Government sales of timber, registration of hammer-marks, procedure in regard to waif timber, and directions for the management of the Kado timber revenue-station.

Effects of the new rules and notifications.

10. The notifications and rules under the Act having come into force as late as the 10th January, no opinion can as yet be formed as to their effects on the conservancy and general management of the forests. There is however good reason to anticipate an increase in revenue from the application of the trade license system to all unreserved timber extracted for sale and removed beyond a certain distance from the forests and the more efficient protection of the reserved forests as well as greater efficiency in the control of timber on the Salween river.

1.—Establishments.

General remarks.

11. The progress made in forest demarcation of late has necessitated increasing from time to time the protective establishment; but to obviate the inconvenience resulting from frequent applications to Government, it is deemed best, with the sanction of the local Government, to entertain the additional subordinates on the temporary establishment when their services happen to be required and later on to obtain sanction for the appointment in the permanent establishment.

Increase and decrease in permanent establishment.

12. During the year two foresters, 4th class, and five foresters, 5th class, hitherto, with three exceptions, employed on the temporary establishment, were brought on the permanent subordinate forest establishment in the East and West Salween, Ataran, and South Tenasserim divisions. To enable the Divisional Officers to undertake more of the office work connected with their divisions and hitherto performed at the Salween divisional office, an establishment of one clerk and Burmese writer and two peons were sanctioned for each of the divisions, namely, East and West Salween, Ataran, and South Tenasserim divisions. For the Salween divisional office one office night-watchman was also sanctioned, and an increase likewise sanctioned in the pay of the duftry in the Conservator's office establishment. The forest establishment at Mergui was at the same time reduced by one forester and one forest guard, it being understood that their duties could be attended to by the temporary establishment employed in the plantation. The increase in the total mean expenditure of the permanent subordinate establishment involved in the additions and reductions noted above amounted to Rs. 386 per mensem.

Temporary establishment.

13. With the sanction of the local Government a temporary establishment was entertained at a cost of Rs. 469 per mensem; it embraced the elephant establishment, Mergui plantation establishment, and one forester for the padauk and teak-shipping arrangements throughout the year; also an overseer for blasting work, one travelling clerk and Burman writer for the Officiating Conservator, and two forest apprentices for six months.

Forest apprentices.

14. Great difficulty continues to be experienced in procuring suitable young men for forest apprenticeships. Forest appointments in fact possess little attraction for the better educated Native lads at the different educational establishments in Moulmein and elsewhere; they as a rule obtain remunerative employment here readily enough, and moreover shrink from the rough work and exposure incidental to life in the forests. The best recruits however for the Forest Department as regards physique and habits are undoubtedly to be found chiefly among the Karens who have received some education in the mission schools at Moulmein. The number who remain long enough to be educated in English up to the middle school standard examination are unfortunately exceedingly few, and until something can be done towards raising the standard of education at the mission village schools so as to give opportunities to a larger number of lads to learn English the difficulty of procuring suitable lads for the forest apprenticeships will continue. In January 1882 a Karen lad was entertained as forest apprentice and sent on to the forest school at Dehra Dún; he is reported to have made satisfactory progress, but latterly his knowledge of English was found to be such as to give little hope of his profiting fully by the full course of studies laid down. Another Karen lad was entertained probationally as forest apprentice on the understanding that, as his knowledge of English

was imperfect, he should attend school during the rains; his progress however is found to be too slow to admit of the arrangements being continued another rains.

2.—General protection and breaches of the forest law.

General protection of forests.

15. The general protection of the unreserved forests is dependant solely on large areas, and remote localities in particular, being visited from time to time by observing officers and reliable subordinates. In the case of State forests, the systematic patrolling of boundaries and frequent visits paid by the forest rangers, supplemented by the occasional visits of superior officers, insure more efficient protection. Those which are most efficiently protected are the reserves in which works of improvement are carried on, the local officers in charge being assisted by the Karen cultivators residing within the reserves. During the year all the State forests have been visited and their boundaries, with few exceptions, patrolled, except the Mau reserve in the Ataran division, the inspection of which by the Divisional Officer had to be deferred owing to water not being procurable in it in the latter part of the dry season. Considerable areas of unreserved forests have also been visited by officers when proceeding to and from the reserves, and it may be assumed that with some few exceptions the protection of these forests is generally satisfactory. In the Thaungyin forests, for instance, the Karens are loath to give up their time-honoured custom of cutting toungyas occasionally in teak tracts, and the absence of any prohibition against including teak trees in taungyas would certainly be a serious drawback under the new Forest Act but for the fact that all the more valuable and extensive teak localities now fall within the reserves. The Karens also who are employed in the extraction of teak timber in most of the forests, unless closely watched, are found to indulge in the practice of felling and removing trees and timber imperfectly seasoned in direct infringement of their contracts It has been found necessary from what came under the Conservator's observation in the Ataran forest in February to draw the attention of Divisional Officers specially to this matter, as the due enforcement of the rules regarding seasoned timber constitutes one of the principal safeguards and checks against illicit girdling and felling of green teak trees similar to what took place in the Sittang leased forests in 1870-71. From the great increase in cases relating to defaced timber, it would at first seem that protection of the Salween river has not been very satisfactory during the past year. As many as 381 defaced logs were detained at the Kado revenue-station, and upwards of 400 such logs were voluntarily surrendered by the principal traders and others, who were naturally ashamed to have timber of this description found in their rafts. From the fact however that the defacement had been effected in a very rough manner, the logs having been hacked about and chipped and otherwise treated in the most unscientific fashion from a timber thief's point of view, the Deputy Conservator's opinion is that the logs were defaced in foreign territory on some reports being circulated that the Kado timber revenue station was to be abolished on the occasion of the agitation for repeal of the duty. The protection of the Salween river cannot therefore be regarded as unsatisfactory during the year, and judging from the activity displayed by the forest ranger and guard-boat resulting in cases of breach of rules being reported, the control of the river was if anything an improvement on previous years. The high prices ruling for teak timber cannot but tend to an increase in certain offences, and application was made towards the close of the year for sanction to the entertainment of an additional forest ranger and boat's crew for patrol purposes.

Breaches of forest law in reserved forests.

16. The only breach of the rules reported in reserved forests was the illicit girdling of one teak tree, I class, just within the east boundary of the Gôngyi reserve. Mr. Murray discovered it in the course of his inspection of that reserve and reports the tree to have been girdled as late as January or February. Suspicion naturally falls upon Watho, the Karen petty contractor in that locality, and orders have been issued prohibiting his employment in future by the departmental contractor. In the Mithawe reserve, East Salween division, a Karen

was discovered to have cut a taungya, but as final demarcation had not then taken place and no injury to teak had been committed he was dismissed with a caution.

Breaches of forest rules in unreserved forests.

17. In the Ataran unreserved forests two cases of extracting thingan boat-hulls on time-expired licenses were reported; also one case of a forest contractor having cut four half-green teak logs; the Conservator discovered a similar case in another contractor's forest. All these cases were pending at the close of the year. In the South Tenasserim division six cases of breaches of forest rules were prosecuted in the Court of the Deputy Commissioner, Tavoy, and three cases in the Sitkè's Court at Nabule and Inzauk. Of these cases, six involved the cutting of timber without permits and resulted in the infliction of fines varying from Rs. 5 to Rs. 20. In one case of not reporting a raft at the revenue-station a fine of Rs. 10 was inflicted; and in two cases of barking thitka trees and making charcoal without a license, the parties concerned were respectively fined Rs. 10 and Rs. 5, or in default seven days' rigorous imprisonment. Three cases of breach of forest rules, implicating four persons, and relating to theft and marking of timber were dealt with in the Salween division in the District Magistrate's Court, and resulted in two individuals being sentenced to three months' rigorous imprisonment and one being fined Rs. 200.

Breaches of forest rules connected with Kado revenue-station and Salween river.

18. The Deputy Conservator, Moulmein, investigated and dealt with 55 cases of breaches of the rules, in which 37 persons were punished with fines amounting in all to Rs. 1,680 and 13 persons with confiscation or detention of 381 logs. Two cases were also tried by the Extra Assistant Commissioner, Hlaingbwè, involving defacing of timber marks and carrying of hammers without authority, and resulted in fines of Rs. 50 and Rs. 190 respectively being inflicted. Compared with the figures of the previous year, the number of cases exhibit an increase of twelve and of persons tried an increase of four the result doubtless of the defacing of timber marks on a large scale in foreign territory already alluded to in paragraph 15 and the high prices prevailing for teak timber of every description.

3.—*Forest fires.*

Fire-protection successful, except in East Salween division.

19. With the exception of the East Salween division, in which "fire-protection" has been but recently commenced, measures undertaken during the past season for the protection of the usual reserves have been on the whole successful. There were early showers, but unfortunately these were succeeded by very hot dry weather, which to a certain extent minimized their good effects and in some instances proved more dangerous than the previous dry weather, the protective establishment having relaxed their vigilance in consequence of the showers. Six fires broke out in four out of the eight reserves protected in the West Salween and Ataran divisions, but these were all insignificant with the exception of one in the Ônkangyi-Dôndami reserve, in which large stretches of elephant-grass render protection very difficult. It was however very creditable that 10 square miles of this reserve was successfully protected.

Areas actually protected in several reserves.

20. The results in the case of the seven reserves in West Salween show a total of 29,747 acres successfully protected out of an area of 31,680 acres attempted. In the West Mèpalè reserve, East Salween division, there were two serious fires and one of small extent (one as late as April), which unitedly spread over 15 square miles out of 30 square miles attempted to be protected. The first of these was due to faulty arrangement, but the other two were the result of the fires crossing what was believed to be a natural fire-resisting boundary.

Total area protected.

21. From statement (form No. 51) appended it will be seen that out of a total area attempted to be protected, namely, 61,914 acres, the area successfully protected was 50,240 acres. This compared with the results of the previous dry season's work shows a decrease of 8,570 acres in the total area successfully protected, which is entirely due to the failure in the West Mèpalè reserve, where a much too large area was taken in hand at the commencement, successful results being then purely accidental.

It was intended to have extended protection to the Gaunggyi and Natchaung reserves in the Ataran division, but the Karens not coming forward in time the project had to be deferred.

Cost of fire-protection and distribution of same.

22. The total expenditure on the work of fire-protection was as follows :—

	Area attempted.	Area protected.	Cost.
	Acs	Acs.	Rs.
East Salween division	19,200	9,600	689
West Salween division	31,680	29,747	778
Ataran division	11,084	10 898	826

4.—Grazing and fencing.

Reserves not burdened with grazing rights.

23. The sanctioned reserves in this circle being either in the hills, where cattle are not reared or in sparsely populated localities are all free from rights of "grazing." When the Kyaukket reserve was in course of being demarcated, the question of allowing grazing for elephants was raised, but it was deemed advisable to exclude a definite area *in toto* for this purpose in preference to allowing such rights within the reserve. The proposed Martaban reserve is however an exception, being in the plains near Moulmein, and when sanctioned will provide a considerable grazing area to the villages in the vicinity.

Fencing not yet undertaken in any of the reserves.

24. The Department has not been under the necessity of fencing in any of the reserves. The reservation of the Natchaung reserve, Ataran division, provides for a portion of the north boundary being fenced in by the Forest Department prior to any charges for cattle-trespass being instituted against the villagers of Natchaung village, but up to the present no cases of damage by cattle-trespass have been reported, the villagers being on the whole careful to prevent trespass.

5.—Natural reproduction.

Reproduction in Mithawe reserve, East Salween division.

25. No valuation surveys have been executed nor observations submitted by Divisional Officers during the year in any of the teak localities included within the reserves, their time being fully occupied with demarcation and examination of boundaries and other duties. A portion of the recently demarcated Mithawe reserve, East Salween division, was visited by the Conservator when examining the trees girdled this past season and a counting made over an area of 32·3 acres on a total length of 2·67 miles of linear surveys. On the hills where teak occurs in bamboo-jungle and along the edge of the dry forests on the crest of the ridges seedlings appeared to be plentiful and promising trees of the III class in fair proportion, being about treble the number of II class trees as will be seen by the following figures :—

Acs.	I class.	II class.	III class.	IV class.
20·4	52	53	155	260

Along the banks of the Thaungyin, the teak having to struggle with a large sprinkling of moist forest trees, reproduction is in a very bad state. This is doubtless due in the first instance to the indiscriminate girdling of all marketable trees which took place near the river many years ago, as evidenced by the stumps largely outnumbering the total of trees of the first three classes. It is therefore much to be regretted that, notwithstanding orders to the contrary, another indiscriminate girdling of I class trees took place in this tract this past season as reported in paragraph 42.

6.—Artificial reproduction.

Teak taungya-cultivation exhibits decrease in area compared with previous year.

26. The cultivation of teak in taungyas was continued in the West Salween and Ataran divisions and a commencement made in the East Salween division. The area taken in hand shows a considerable decrease in the West Salween division, being only 53 acres or 102 acres less than the area cultivated during

the previous year. This reduction is chiefly due to certain new conditions regarding the collection of teak seed proving distasteful to some of the older hands among the cultivators, each individual being expected to collect two baskets at a cost of Re. 1 per basket. Owing to some surplus seed of indifferent quality of the previous year being used in two of the reserves, the area successfully cultivated was only 84 acres, of which 43 acres are well stocked and the remainder indifferently stocked as far as can be seen at present, the average on it being less than 250 plants per acre. This compared with the previous year's figures shows a falling-off of 105 acres in the area cultivated.

Total area of plantations noted in statement.

27. With the area cultivated during the past year the total area planted under this method of cultivation has been increased from 1,305 to 1,389 acres. In accordance with the orders of Government, these taungya plantations have been included with the regular plantations in form 50 appended to the report, the figures of which may be thus summarized :—

		Acs.
Regular teak plantation (dating from 1856) not intended to be increased...		23
Teak taungya plantation ...		
Well stocked ...	778	 1,389
Indifferently stocked	611	

7.—Cutting of creepers, &c.

Creeper cutting, weeding, &c.

28. The work of cutting creepers and freeing teak saplings from overgrowth was only carried on in the teak taungya plantations, the time of officers being too much occupied to admit of undertaking such works of improvement in any of the reserves. The plantations of 1881 and most of the older ones in the Sinzwè and other reserves in West Salween division were thus treated. The older plantations in the Ataran division were also well cleared and the young teak trees freed overhead. The expenditure incurred varied from Rs. 1-2-0 to Rs. 2 per acre.

8.—Experiments with exotic and other trees.

Experimental cultivation of thitka.

29. In the Kahilu reserve, West Salween division, 4 acres of taungyas were sown with thitka seed, but a very small proportion of the seed germinated. Good seed was very difficult to obtain, but, as the trees have flowered very freely this past dry season, better results are expected from the newly-cleared areas of this year.

Experimental cultivation of padauk.

30. The padouk taungya plantations in the Kahilu reserve were carefully weeded, but only 3 acres are reported to have healthy plants.

Cultivation of para India-rubber (*Hevea brasiliensis*) at Mergui.

31. Owing to the accidental falling of a tree on one of the young *Hevea* trees of 1877 and injuries by buffaloes in the main plantation, the number of these valuable trees has been reduced to 61. Propagation by cuttings was continued but with no better results, only one in 42 additional cuttings according to last report being in a satisfactory condition.

Experimental cultivation of *Broussonetia papyrefira* and akyaw (*Aquillaria aggalochum*), the eagle-wood.

32. The site selected for the "malaingbin" experiment in the lower part of the plantation proved too damp and nearly all the seedlings dried off. On the higher ground however the plants, 191 in number, are of vigorous growth. The 22 young akyaw trees are healthy and have grown somewhat, being now on an average 6 feet high.

Castilloa elastica cultivation at Mergui.

33. The two plants of this valuable species continue to grow and have a healthy appearance but are not large enough yet to furnish cuttings.

Cultivation of ceara (*Manihot glaziovii*) at Mergui.

34. The cultivation of "ceara," which has hitherto been very successful, received a severe check during the past dry season by the attacks of white-ants in unprecedented numbers, which seem to have an extraordinary predilection for the older trees notwithstanding the large quantities of caoutchouc secreted in them. Only 530 trees are reported as uninjured by white-ants and doing well.

In Ceylon, where the cultivation of ceara is so successful, such injuries from white-ants are unknown, and it may be the climate at Mergui is too moist and such as to check the healthy development of the tree and render it liable to suffer from the attacks of white-ants. A special report on the subject has been submitted to Government. One thousand seedlings were raised from seed and 1,000 cuttings were planted, of which 217 are doing well.

Mahogany cultivation at Mergui, Amherst, and Moulmein.

35. The mahogany trees continue to suffer from the attacks of the borer, and the number of trees in hand have been reduced in consequence to 33 at Mergui and 63 at Amherst. Five young trees at Moulmein are however doing well; they were raised from seed supplied by the Superintendent, Royal Botanical Gardens, Calcutta, nearly all of which failed.

Cultivation of *Musa textilis*.

36. The cultivation of *Musa textilis* at Tavoy continuing to prove doubtful of success owing to the generally dry and sandy character of the soil, nine plants were forwarded to Mergui; they are all doing well on a new site selected for the experiment and have already thrown out 12 shoots, which will soon develop into strong plants. The remaining three plants at Tavoy were kept alive during the dry season by occasional watering.

Introduction of other exotics at Mergui.

37. The two vanilla plants continue to grow and look healthier since their removal to the shade of high tree-forest. The four plants of *Ficus macrophylla*, with one exception, are of vigorous growth, and the rain trees (*Pithecolobium saman*), numbering 117, appear now to be thriving although of stunted-looking irregular growth.

Expenditure on experimental cultivation.

38. The following were the amounts expended on experimental cultivation :—

	Rs.	A.	P.
Mergui	2,071	15	10
Kahilu	9	7	0
Total ...	2,081	6	10

9.—*Communications and buildings.*

Communications and buildings.

39. In the West Salween division a new rest-house was constructed at Kyunchaung for the Sinzwè reserve at a cost of Rs. 64-8-0; and a sum of Rs. 45-4-0 was expended on painting and earth-oiling the Papun forest office. In the South Tenasserim division the forest office at Mergui was rethatched and minor repairs were executed at an expenditure of Rs. 70; Rs. 32-7-0 were also expended in repairs to the plantation bungalow and outhouses at Mergui. At Tavoy the Sinzeik depôt was extended at a cost of Rs. 450 and two boats were purchased at a cost of Rs. 110. In the East Salween division the compound of the Kawkareik forest office was fenced in at a cost of Rs. 200; and a sum of Rs. 14 was expended on a temporary watch-house at the Gyaing revenue-station and in clearing the compound of the Kyein rest-house. The total expenditure incurred on communications and buildings amounted to Rs. 5,361-10-2, but this includes the charges connected with blasting in the South Tenasserim division and noted in paragraph 45.

CHAPTER IV.

Yield and Working.

1.—*Departmental operations.*

General remarks.

40. Departmental operations have embraced as heretofore girdling, opening up of streams for the floating of timber, extraction of timber from the forests, and collection of drift and waif timber. The girdling work was satisfactorily executed, except in the East

Salween division, and resulted in 1,021 teak trees being killed in reserved forest and 1,591 in forests outside the reserves, or a total of 2,612 trees besides 3,538 trees of other kinds. The blasting work was successfully carried on in the Upper Tavoy river and its tributary, the Zinba stream, upwards of six separate rocky obstructions being either partly or wholly removed. The timber operations of the year by Government contractors resulted in the following outturn of timber from the Government forests :—

	Logs.	Tons.
Teak	28,910	14,849
Other kinds of wood	4,164	8,917

The increase of 4,273 logs, or 2,377 tons, over and above the previous year's outturn of teak is mainly due to the high market price for teak stimulating the extraction of inferior and II class timber from the Ataran and Dôndami forests. The drift timber operations were attended with the same measure of success as during the previous year, the collections being 1,888 logs from the seashore and 4,101 logs salved in the Salween river, making a grand total of 5,989 logs, or 5,298 tons.

Girding operations.

41. The girdling of teak was continued in block V of the East Salween division and in block I of the West Salween division, the year under review being the third year of the first period of five years during which operations are to be limited to these blocks. The trees of other kinds which were girdled, with the exception of 426 trees, were all selected outside the reserves in all four divisions and in localities possessing facilities for the extraction of timber. The following is the distribution of the girdled trees :—

Division.	Teak.	Other trees.
East Salween	2,074	1,150
West Salween	538	938
Ataran	...	1,050
South Tenasserim	...	400
Total ...	2,612	3,538

Girdling work satisfactory except in East Salween division.

42. The revision conducted in the West Salween, Ataran, and South Tenasserim divisions shows the work to have been on the whole satisfactorily executed. In the East Salween division, owing to want of care in the issue of instructions on the part of the Divisional Officer, 1,021 teak trees were girdled contrary to orders in the newly-sanctioned Mithawe reserve, and the trees being selected without reference to the question of reproduction, considerable injury has resulted to certain portions of the forest. Particulars regarding the localities in which the work was carried on and the results of a revision survey by the Conservator will be found in paragraph 57 of Appendix A and in statement D.

Regirdling of teak trees of the girdling of 1881.

43. In the East Salween division 278 teak trees of those reported as girdled in 1881 were regirdled, the operation having in the first instance failed in its object.

Expenditure in girdling work.

44. The expenditure incurred in the girdling of 6,150 trees was Rs. 1,763-1-0, and with Rs. 34-12-0 expended on the regirdling of 278 trees makes a total of Rs. 1,797-13-0.

Opening up of obstructions in streams.

45. Pending a further examination of the obstructions in the Mintha stream, a large tributary of the Taungbyauk stream in the Tavoy district, it was decided to suspend further operations in it and carry on the work in the meantime in the Upper Tavoy forests. In the Upper part of the Tavoy river during the season five separate obstructions, known as the Yèsogyi, Yèzotha, Shintabyi, and Kyakôn rapids, and the Ngasaing rocks, were entirely removed or opened up for the safe passage of rafts. The work of the season closed with the opening up of the Mèke kadin in the stream of that name. The expenditure incurred, including cost of 1,200lbs. dynamite, was Rs. 4,522-7-2.

Extraction of teak timber from forests by Government agency.

46. The yield in teak timber of the forests worked by Government agency was 28,910 logs, or 14,349 tons, as shown below :—

Division.	Logs and pieces.	Tons.
Salween	5,213	1,067
East Salween	8,369	7,336
West Salween	6,331	2,720
Ataran	8,997	3,226
Total ...	28,910	14,349

The outturn exceeded that of the previous year by 4,273 logs and pieces, or 2,377 tons, the high prices ruling at Moulmein enabling the departmental contractors to bring out large quantities of pieces and logs of inferior quality from the Dôndami and Ataran forests. The outturn in consequence shows an increase of 9,712 logs and pieces from the West Salween and Ataran divisions, but in the East Salween division there was a decrease in outturn of 5,938 logs and pieces owing to seasoned timber being at a greater distance from the waterways and not so abundant.

Cost of extraction of teak timber.

47. In the Salween division the 5,213 logs extracted comprised 4,949 pieces from the Lower Salween forests and 264 crooks from Kolun island, and hence the average cost of extraction was only Rs. 2-2-5 per log or piece. In the East Salween outturn 1,528 pieces from the Hlaingbwè forest cost on an average Rs. 3-3-0 each; and on 387 logs and pieces from the Haungdaraw forests the average cost of extraction amounted to Rs. 6-6-7 per log or piece. No estimate of the cost of 6,500 logs extracted from the Thaungyin forests can yet be made, the timber being in transit to Moulmein, where, according to the new arrangements, final measurement has to take place. From the Bilin forests in the West Salween division 302 logs were extracted at an average cost of Rs. 19-0-8 and 772 from the Yunzalin forests at an average of Rs. 12-4-2 per log, while on the Dôndami outturn, chiefly pieces and short logs, the average cost was only Rs. 4-8-1 per piece. On the Ataran timber, likewise small in size and inferior, the average cost of extraction was Rs. 6-1-3 per piece.

Timber of other kinds extracted by Government agency.

48. Of timber of other kinds the outturn was 4,164 logs, or 3,917 tons comprising timber of the following kinds :—

Division	Thitka.		Pylnma.		Pyingalo.		Padauk.		Karawe.		Magalo.		Ingyin.		Petwun.		Kokko.		Kaunghmoo.		Thityn.		Yinmane.		Kanaso.		Anan.		Manthin.		Kyasi.		Che.		Thingan.		Total	
	Logs	Tons.	Logs.	Tons.	Logs.	Tons.	Logs.	Tons.	Logs.	Tons.	Logs.	Tons.	Logs.	Tons.	Logs.	Tons.	Logs.	Tons.	Logs.	Tons	Logs.	Tons.	Logs.	Tons.	Logs.	Tons.	Logs.	Tons.	Logs.	Tons.	Logs.	Tons.	Logs.	Tons.	Logs.	Tons.	Logs.	Tons.
Salween	331	408	326	234	68	16	.	...	...	...	...	..	...	...	...	...	...	.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	725	658
East Salween	137	146	927	888	105	34	4	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,173	1,093
West Salween	64	86	40	26	48	15	..	..	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	172	127
Ataran	372	509	834	754	31	16	128	89	...	...	..	...	101	62	19	7	12	5	7	5	48	36	14	10	...	...	...	...	...	...	...	...	...	...	...	...	1,556	1,493
South Tenasserim ...	322	425	20	10	...	...	...	...	18	9	20	11	...	...	...	...	...	...	...	...	...	...	18	11	33	25	21	13	17	10	19	11	22	12	18	9	528	546
Total ...	1,246	1,574	2,147	1,912	252	81	132	94	18	9	20	11	101	62	19	7	12	5	7	5	48	36	32	21	33	25	21	13	17	10	19	11	22	12	18	9	4,164	3,897

Cost of extraction of timber other than teak.

49. The cost of extraction of 3,612 tons of the lighter kinds of wood varied from Rs. 6-13-11 to Rs. 17-7-3 per ton and of 292 tons of heavy kinds from Rs. 7-7-11 to Rs. 29-4-0 per ton. In the South Tenasserim division the rates paid for extraction of the light and heavy kinds varied from Rs. 5 to Rs. 6 per ton. These low rates on heavy woods are explained by the fact that the people on the Tavoy river and elsewhere have long been accustomed to the floating of heavy woods. The bamboos which are used in rafting are also easily procured near the rivers, and likewise find ready sale at and near Tavoy.

Outturn of sleepers and other converted timber.

50. From the forests in the Salween division 260 broad-guage and 131 narrow-guage pyingado sleepers were received; and from Tavoy the outturn was 1,780 broad and 8,933 narrow guage pyingado sleepers and 21 tons of pyingado scantling. The prices obtainable for sleepers at Calcutta do not leave much of a margin for profit, but it is desirable nevertheless to continue the work and so be in a position to expand operations to meet local or other demands as they arise. In the Ataran division 37 tons of padauk planks were prepared at Ye for the Fatehgarh Gun-carriage Factory, but on delivery at Moulmein proved to be too full of defects to admit of being despatched. From this division three boat-hulls of thingan wood were also received at the Moulmein depôt. The cost to the Department of the broad and narrow guage sleepers were Rs. 3-5-6 and Rs. 1-9-7 per piece in the Salween division and Rs. 2-4-0 and Rs. 1-1-7 respectively in the South Tenasserim division.

Collection of drift timber.

51. During the year in the Salween division 1,808 logs of sea-drift timber and 4,101 logs of river-drift timber were collected, and in the South Tenasserim division 106 logs and pieces were collected from the seashore, making a total collection of 6,015 logs and pieces, or 5,298 tons of teak timber: this, added to 1,787 logs, or 1,278 tons, the balance in hand of the previous year, makes a total of 7,802 logs, or 6,576 tons, of drift timber to be accounted for.

Disposal of drift timber.

52. The disposals of drift timber were as follows:—

		Logs.	Tons.
Made over to claimants...	Sea-drift	321	2,241
	River-drift...	2,238	
	By sales at depôt	2,652	2,391
	Sold locally at seashore ...	543	423
	Total of disposals ...	5,749	5,055
	Balance in hand on 1st April 1883 ...	1,948	1,422

Expenditure on salving operations.

53. The total expenses under this head amounted during the year to Rs. 34,094-5-3. The heaviest charges are in connection with the seashore-drift timber, upon which it has been customary to pay to the collectors half the market value of the timber. Owing however to the great rise in the price of teak, the following reduced rates are now paid on sea-drift timber:—

Logs up to Rs. 40 in value	Half rates.
Logs from Rs. 40 to Rs. 60 in value...	Rs. 20
Logs above Rs. 60 in value	One-third rates.

The average cost of collection on river-drift timber was Rs. 5-12-3 per log.

2.—Removal of produce by purchasers.

General remarks.

54. Produce removed from the forests by purchasers in this circle comprises—

(1) teak timber extracted by lease-holders from the Ataran and Pandaw forest;
(2) teak timber disposed of in the forests;
(3) other kinds of timber from the leased forests;
(4) timber other than teak sold in the forests;
(5) timber other than teak removed from the forests under trade licenses;
(6) minor forest produce removed from the forests under licenses.

The working of the leased teak forests has continued to be limited to the Mittigeik and Mittigeik-Kodugwè forest in the Ataran division and the Pandaw

forest in the Salween division, but the high price of teak timber may be expected to lead shortly to the working of some other leased forests which contain a fair proportion of very old trees above the standard size but hitherto believed to contain timber of inferior quality which was not worth extraction. Timber of other kinds extracted from the forests shows a slight increase, and the increase may be expected to continue as long as the high prices of teak prevail. The new revenue rules under the Burma Forest Act came into force on the 1st July, making all timber subject to duty which is removed for trade purposes. It is as yet too early to form any opinion on their effect on the extraction of certain descriptions of timber, but one noticeable result of levying duty per log, and not per ton, is the larger extraction of mature timber of greater length and girth than under the former rules.

Teak timber removed from forests by lease-holders.

55. From the Mittigeik and Mittigeik-Kodugwè forest the lease-holder, Ramasawmy Raja, extracted 225 full-size and 17 under-size logs, 90 short-pieces, and 51 crooks, making a total of 383 teak logs and pieces, or 383½ tons. From the Pandaw leased forest the outturn was 8,270 teak pieces, equivalent to 3,944 tons. So large a quantity has excited suspicion of the conditions of the lease having been contravened, and the forest is in course of being examined.

Teak timber disposed of in forests.

56. The sales of teak timber in the forests were limited to 14 logs in the West Salween division.

Other kinds of timber extracted from leased forests.

57. From the Mittigeik forests the lease-holder also extracted 617 thitka logs, measuring 748 tons, the right to remove all timber other than teak being also granted in the lease subject to an *ad valorem* duty of 10 per cent.

Sales of timber other than teak in forests.

58. These sales were limited to 109 pyinma logs in the West Salween division, one thitka log in the East Salween division, and 12 pyingado logs in the Salween division.

Timber for which trade permits and licences were issued in Salween, West Salween, East Salween, and Ataran divisions.

59. Prior to the new rules coming into force on the 1st July, trade or B permits were issued in the several divisions in the Amherst and Salween districts for 1,356 trees: subsequently under the new rules trade licenses, form VI, were granted for 15,903 trees of the unreserved kinds, namely—

	No.		No.
Pyingado	2,229	Taungwayo...	15
Thitpyu	3,005	Ngu	15
Thitya	570	Thabyu	27
Mango	3,750	Panga	25
Byu	1,250	Maniawga	80
In	285	Bônmèza	100
Ingyin	22	Karawe	33
Zinbyun	50	Kyeyze	7
Ôkhaw	1,105	Tagu	1
Aukchinza	1,165	Kanyin	269
Katswe	1,950		

Prepaid trade licenses were also granted for 601 logs pyingado, kathway, mango, in, katsi, panga, ngu, and thitpôk. Trade licenses were likewise issued for 3,228 trees of two of the reserved kinds, namely, 2,751 pyinma and 473 thingan trees.

Tonnage of timber extracted under trade permits and licenses.

60. The actual tonnage extracted from the four divisions on the Salween side during the year upon which revenue was realized amounted to 22,390 logs, or 7,712 tons. Of this quantity 5,166 logs, or 4,027 tons, were passed on permits of the previous year, 728 logs, or 638 tons, on similar permits issued prior to the 1st July of the year under review, and 4,096 logs, or 3,045 tons, on trade licenses. In addition to this timber 11,400 bamboos were passed at the revenue-station before orders were received cancelling the duty on such produce.

Timber extracted under trade permits in South Tenasserim division.

61. The total quantity of timber of other kinds extracted under trade licenses and upon which revenue was realized in the South Tenasserim division, exclusive of the Mergui district, amounted during the year to 2,771 logs, They represented timber of thirty to forty different kinds as noted in form No. 63.

Total quantity of timber removed under trade licenses and on which revenue was received.

62. The total quantity of timber extracted from the forests under trade licenses in the whole circle and timber upon which revenue was collected amounted to 25,161 logs. This is exclusive of the quantity extracted in the Mergui district, the figures for which had not been received in time to incorporate with those of the South Tenasserim division.

Minor forest produce removed from forests by purchasers.

63. The only minor forest produce shown as removed from the forests on payment of revenue has been wood-oil and charcoal, and the proceeds of the sales of licenses have been credited accordingly. There are however no means of ascertaining the quantities of each actually removed, revenue being simply obtained on the licenses issued for certain areas. In the Tavoy district it has been the custom for some years to sell annually to the highest bidder the right to tap the kanyin trees on certain defined areas into which the district is divided for the purpose; but in the Mergui district, where the people have almost, from long usage, established a prescriptive right to tap the trees near their villages, the system has been introduced of issuing collecting licenses to individuals actually engaged in tapping the trees as provided under the new rules.

Increase of wood-oil sale areas in Tavoy district.

64. The sales by auction in the Tavoy district realized 50 per cent. more than during the previous year owing to certain additional outlying areas being disposed of consequent on the whole of the waste lands being subject to the new Forest Act. The last of the sales were effected before the promulgation of the new rules on the 10th January 1883, and the permits are consequently not subject to the restrictions noted in the rules in regard to the size of the trees to be tapped and number of inches to be cut. Next year's sales may therefore not yield so much, as the condition cannot but to some extent affect the yield.

Revenue realized on minor forest produce.

65. The revenue realized and credited during the year was as follows :—

		Rs.	A.	P.
Tavoy district ...	Wood-oil licenses	2,099	8	0
	Charcoal do.	38	8	0
Mergui district ...	Wood-oil licenses	1,478	0	0
	Ditto for the period between August 1881 and May 1882	1,875	0	0

3.—Free grants of forest produce.

Free permits for timber.

66. Prior to the 1st July free permits were issued by the Civil authorities for 7,625 trees, of which 4,890 were pyingado, 1,798 in, 551 pyinma, and the remainder thingan, ingyin, anan, thitya, thitpyu, and kanyin. Subsequent to that date all timber was declared free for *bonâ fide* domestic and agricultural purposes within the revenue circle, or within five miles of the place of production; and the issue of free permits being abolished, there is no means of estimating the number of trees obtained free from the forests during the remainder of the year. From the 1st July free licenses in accordance with the new rules were issued for timber of both the reserved and unreserved kinds when required for construction of buildings for the common benefit of the public. The total quantity thus granted was 406 logs, of which 185 were of pyinma, 106 of thingan, 64 pyingado, and the remainder comprised thitkado, thitya, thitpyu, karawe, anan, and kanzaw.

Minor forest produce the use and sale of which is free.

67. Cardamoms continued to be collected for sale by Karens and others in the moist forests of the Tavoy district. Enquiries were instituted with reference to the feasibility of levying duty on their collection and introducing a system similar to that in force in India under which the produce is collected for, and received by, the Forest Department so as to do away with the rapacious class of individuals known as middlemen. The Divisional Officer, Mr. Aplin, reported that the Karens and others dispose of the cardamoms direct to exporters but that the prices obtained are not very remunerative, and that some years ago when an attempt was made to sell the right to collect over certain areas not a single bid was forthcoming. Under the circumstances it appeared to him to be impolitic

to impose any duty for the present on cardamoms. The export returns at Tavoy show a considerable increase in the export of cardamoms during the past year, the quantity being 28,035lbs., valued at Rs. 6,923, whereas in 1881-82 the quantity reported as exported was only 6,315 lbs. The bark of the pyoo (*Rhizophora mucronata*), used for tanning purposes, was also exported (to Rangoon) to the extent of 1,567 cwt. and of ôndôn (*Tetranthera lawrifolia*) 48 cwt., generally used at Rangoon for admixture with salt of local manufacture. The total value of the bark exported is estimated at Rs. 2,675. Considerable quantities of forest produce are also collected free of duty in the Mergui district and exported, but no detailed information has been yet received for the year under review. Usually this produce comprises canes, leaves of the dani (*Nipa fruticans*), used for thatching, and a variety of sandalwood.

4.—Summary of produce removed from the forests.

Total yield during the year.

68. The yield of the forests in the Tenasserim circle during the year under review was as follows :—

Timber.

	Teak.			Timber other than teak.		
	Logs and pieces.	Scantlings.	Tons.	Logs and pieces.	Scantlings.	Tons.
By Government agency	28,910	...	14,349	4,164	...	3,917
By lease-holders	8,653	...	4,327	617	...	748
By purchasers in the forests	14	...	8	122	...	57
Under trade permits and licenses... ...	...	...	...	25,161	...	7,712
Under free permits	...	...	...	7,625	...	5,387
Under free grants for public purposes ...	...	...	...	406	...	164

5.—Import and export of forest produce.

Condition of the import trade during the year.

69. The import trade of teak timber with British territory from the Karennee, Gyaingtaung, and Siamese Shan States continued in a flourishing condition throughout the year owing to the extraordinary high prices obtainable in the Moulmein market. Only two dacoities were reported—one above Papun in British territory and the other beyond the Thaungyin river—in which one man was killed and certain traders lost about Rs. 20,000; and on the whole the year may be said to have been a most favourable one to the importers of teak timber.

Foreign timber reported at Kado revenue-station.

70. The number of teak logs and pieces imported across the frontier by the Salween river and reported at the Kado revenue-station during the year amounted to 116,818, having a tonnage of 140,604 tons and made up as follows :—

		Logs and pieces.	Tons.	Total tonnage.
Karennee.				
Full-size logs	57,655	58,518	77,777	80,459
Under-size logs	863			
Stem-pieces	...	3,353	2,682	
Gyaingtaung.				
Full-size logs	6,670	6,840	8,300	10,264
Under-size logs	170			
Pieces	...	2,955	1,964	
Hmainglôngyi.				
Full-size logs	5,664	5,668	8,502	9,555
Under-size logs	4			
Pieces	...	1,316	1,053	
Thaungyin.				
Full-size logs	19,503	24,092	24,092	29,383
Under-size logs	4,589			
Pieces	...	6,614	5,291	
Dagwin.				
Full-size logs	6,336	7,096	10,644	10,943
Under-size logs	760			
Pieces	...	366	299	
Total ...		116,818	...	140,604

71. Compared with the importation of the previous year these figures exhibit an increase of 21,741 logs; or 11,314 tons, which is principally due to the greater activity displayed in the working of the Karennee and Foreign Thaungyin forests. The outturn also contained a larger percentage of superior timber, the result doubtless of the high prices such timber is now commanding in the Moulmein market. A comparative statement will be found in Appendix E, showing the importations of foreign teak timber during the past four years. It continues to exhibit considerable fluctuations, but the outturn of the year under review is in excess of the yearly importations of the previous four years but less than that of 1877-78 by 4,721 tons.

Increase in importation and improvement in quality of foreign teak imported by Salween river.

72. The only timber of other kinds imported from beyond the frontier and reported at Kado was 47 logs of thitgado (*Cedrela toona*), nearly all from the Gyaingtaung forests.

Importation of foreign timber of other kinds by Salween.

73. The transactions at the Kado timber revenue-station in foreign teak timber was as follows :—

Transactions of foreign teak timber at Kado revenue-station.

	Logs.	Tons.
Balance on 1st April 1882	10,584	11,090
Arrivals during the year	116,818	140,604
Total ...	127,402	151,694
Passed on payment of duty	116,035	139,242
Balance on 31st March 1883 ...	11,367	12,452

The balance comprised the following years' importations :—

	Logs.
1880-81	41
1881-82	81
1882-83	11,245
Total ...	11,367

74. During the year 508 hammer-marks were registered, of which 348 were renewed or registered under the old rules at a fee of Re. 10 each and the remainder under the new rules, namely, 108 at a fee of Re. 1 each, 11 time-expired marks at Rs. 25 each, and 41 new marks at Rs. 100 each.

Registration of hammer-marks used in the trade in foreign timber.

75. The total quantity of foreign timber imported into Moulmein during the year was—

Total quantity of teak timber imported into Moulmein by Salween and its value.

Logs.	Tons.	Value. Rs.
115,371	138,106	77,30,891

The average value was Rs. 67 per log, or Rs. 56 per ton.

76. The quantity and value of timber and minor forest produce imported into Moulmein by sea will be found noted in Appendix C(4). The 85 tons teak from provincial ports were Rangoon converted timber for local use; and the 295 tons of timber of other kinds represents chiefly pyinkado sleepers despatched from Tavoy for transhipment to Calcutta. The 2,562 gallons wood-oil came from Tavoy and Mergui and 234 cwt. cutch from Rangoon.

Imports of timber and minor forest produce into Moulmein by sea.

77. The export trade of teak timber at Moulmein continued brisk throughout the year consequent on the high prices ruling in Europe and a fair demand being maintained in the Indian markets. The prices in Europe and the Indian markets are shown in Appendix I as ranging chiefly between £13-10-0 and £16 per ton in the former and between Rs. 95 and Rs. 120 for squares and Rs. 60 to Rs. 160 for scantling in the latter.

Export trade of teak timber.

78. During the year 112,374 tons of teak timber, valued at Rs. 1,01,63,894 were exported as shown in Appendix C(1) to the following markets :—

Export of teak during year.

	Tons.
United Kingdom	37,209
Bombay	27,403
Bengal	29,797
Madras	9,091
Provincial ports	1,621
Other countries	6,527

79. The exports of teak timber from the port of Moulmein during the past five years were—

Exports of teak during past five years.

	Tons.	Value. Rs.
1878-79	103,207	61,32,445
1879-80	97,415	60,34,384
1880-81	113,399	75,29,950
1881-82	112,164	85,21,896
1882-83	111,648	1,01,37,354

80. Other kinds of timber were exported to the extent of 5,682 tons, valued at Rs 2,76,641. The exports to Bombay and Madras consisted principally of padauk, ingyin, and pyinma, shipped by the Forest Department for the gun-carriage factories, and those to Calcutta comprised hardwood pyingado sleepers and scantlings of different woods cut to sizes for tea-boxes.

Exports of other kinds of timber.

CHAPTER V.

FINANCIAL RESULTS.

81. The accounts of the East Salween, West Salween, Ataran, and South Tenasserim continued to be incorporated with those of the Salween division, but arrangements were in progress at the close of the year to have the South Tenasserim accounts separately rendered from the 1st April 1883. As has been the case always hitherto, the system of working dead and seasoned teak timber over large areas and disposing of it at a distant market does not admit of the yield and financial results being determined separately for reserved and unreserved forests. Up till the 31st December 1882 the duty levied on foreign timber imported by the Salween was one per cent. *ad valorem*, but from and after the 1st January 1883 it was reduced to half per cent. *ad valorem* in accordance with notification No. 6F. of the local Government, dated the 10th January 1883.

General remarks.

82. The financial results of the circle for the year under review exhibit a net revenue of Rs. 4,86,842-10-8 as shown below :—

Financial results.

Receipts.

	Rs.	A.	P.
I.—Departmental timber operations, I and III ...	7,64,747	0	2
II.—Other revenue, II, IV, and V	1,12,817	11	8
Total receipts ...	8,77,564	11	5

Expenditure.

	Rs.	A.	P.
I.—Departmental timber operations I, III, ¼VI, ⅛B, ⅛ direction	3,23,645	0	0
II.—Other revenue, II, IV, ¼VI, IX, ⅛B, ⅛ Direction ...	22,868	0	9
III.—Formation, protection, and improvement of forests ¼VI, VII, VIII, ⅛B, ⅛ Direction	44,209	0	0
Total expenditure ...	3,90,722	0	9
Leaving as net revenue ...	4,86,842	10	8

83. The success of the year's operations is mainly due to the high prices obtained for the teak extracted from the Government forests, the selling price of 7,617 logs of Thaungyin timber being as high as Rs. 43-12-5 per log, or Rs. 40 per ton, and of 255 pieces as much as Rs. 31 per ton. The unclaimed drift teak timber also realized good prices, allowance being made for its quality, the prices

Successful results due chiefly to high prices of teak.

varying from Rs. 15-8-3 to Rs. 28-8-3 per log. The revenue of the year has also benefited by no payments having to be made for the Thaungyin timber in course of transit from the forests at the close of the year. Under the new arrangement it has to be measured and paid for on delivery at Moulmein and not at the frontier as formerly.

Transactions in timber of other kinds attended with favourable results.

84. The transactions of the Department in timber of other kinds also contributed to the favourable results of the year, 3,596 logs being disposed of for Rs. 90,646-15-2 and fair prices being realized on pyingado scantling and thitka timber converted at Tavoy and disposed of in Moulmein.

Revenue of Kado timber revenue department.

85. The Kado timber revenue department contributed a net revenue of Rs. 64,624-9-0, namely—

	Rs.	A.	P.
Receipts less duty on British timber and sales of drift timber	77,453	5	0
Expenditure, not including control and direction charges	12,828	12	0
	64,624	9	0

Outstandings.

86. The outstandings at the close of the year in the contractors' and disbursers' ledgers amounted to Rs. 46,630-0-9, of which Rs. 40,423-12-0 represented advances covered by Thaungyin timber in transit from the forests.

CHAPTER VI.

General Remarks.

Changes in controlling establishment, health of officers, &c.

87. Mr. H. C. Hill, Officiating Conservator of Forests, continued in charge of the Tenasserim circle till the 6th December, when he was relieved by Mr. E. P. Popert, Deputy Conservator, 2nd grade, and proceeded to Rangoon for special duty in the office of the Conservator of Forests, Pegu Circle. On the 29th January 1883 Colonel Seaton, Conservator of Forests, 1st grade, reported his return from furlough and relieved Mr. Popert of the charge of the circle on the 3rd February. Captain C. T. Bingham, Deputy Conservator, 3rd grade, proceeded on subsidiary leave on the 26th May, and availed himself of the furlough granted to him in the Military Department on the 17th June 1882. Mr. F. W. Thellusson was absent on privilege leave from the 24th June to the 23rd September 1882, and on his return was transferred from the latter date temporarily to the Pegu circle for special duty in the Hanthawaddy district. Mr. C. W. Palmer, Deputy Conservator, 3rd grade, was transferred to this circle from the Pegu circle from the 1st August and appointed to the charge of the East Salween division. Mr. H. B. Ward, Assistant Conservator, 1st grade, in charge of the West Salween division, was on special duty at Moulmein from the middle of September to the middle of November. Mr. J. C. Murray, Officiating Assistant Conservator, was transferred from the Forest School Circle, Dehra Dún, North-Western Provinces, to the Forest Department in British Burma in Government of India notification No. 890F. of the 20th November 1882, and reported his arrival at Moulmein on the 27th January 1883. Mr. Murray was appointed to the charge of the Ataran division on the 27th January 1883. Mr. M. H. Ferrars, Deputy Conservator, 2nd grade, who continued to serve in the Education Department until the 6th March 1881, when he proceeded on furlough, was appointed on his return to the charge of the forests in the Andamans and vested with the powers of an *ex-officio* Superintendent of Port Blair and the Nicobars. The health of the officers of the controlling establishment has on the whole been good throughout the year, the only exception being that Mr. Ward was somewhat indisposed towards the close of the year.

Mr. Ward engaged in operations for improvement of navigation of Yunzalin river.

88. Mr. Ward, Assistant Conservator in charge of the West Salween division, having been nominated by the local Government to the special charge of operations for the improvement of the navigation of the Yunzalin river was under the necessity of devoting much of his time in February and March to this work. Thirty-six Coringee coolies were engaged by Mr. Ward

for the work of removing snags and other obstructions, but their number was diminished from time to time as sickness broke out and compelled some to leave. Finally, in the middle of April, two men having died and the cooly maistry being in a dying state, Mr. Ward was compelled to stop the work and dismiss the few men who remained, only nine in number. Next season, if a reliable overseer is engaged for the work and Kamu coolies substituted for Coringee men, the result will be more satisfactory and less of Mr. Ward's time will be occupied with minor details.

Changes in subordinate forest and office establishments.

89. In August 1882 Shwe Ye, the senior forest ranger, who had entered the Department in 1860 and who had been lately on sick leave, was found to be incapacitated for further service, and Maung Po Tu, who had served as forest ranger in the Andamans, was appointed in his stead to the West Salween range: he is reported as working satisfactorily; but of the two other forest rangers the reports by Divisional Officers show one not to be very careful in his duties, and the other, Shwe Aung, as having proved himself most unreliable and almost useless: a little after the close of the year he was suspended pending enquiry into certain charges. Mr. Grady, Superintendent of the Conservator's office, was again absent on sick leave from the 14th March to the 7th December, during which time his duties were attended to by Mr. Edwin. Mr. Grady being pronounced incapacitated for further service on the 13th December, Mr. Johnson, of the Tharrawaddy division, Pegu circle, was nominated Superintendent on the 23rd January 1883. Most of the subordinates of the lower grades appear to have given satisfaction, except in the East Salween division, where the Divisional Officer considers higher rates of pay essential to obtain really efficient men. It is true that the class of men who enter the forest service are not distinguished by great intelligence and educational attainments, but good work can be got out of them by careful and patient handling and instruction.

Health of subordinate establishment.

90. The health of the subordinate forest establishment is reported to have been on the whole good, although there were some cases of fever. Two casualties occurred in the South Tenasserim division, one being that of a forester who was drowned in the Tavoy river and the other that of a clerk who died of cholera at Tavoy.

Organization of forest beats.

91. In the West Salween, East Salween, and Ataran divisions the ranges and beats are—

I.—West Salween Division.

(*a*) West Salween range, Upper Salween, Wamu, Sinzwè, Kahilu and Bilin, and Dôndami beats.

II.—East Salween Division.

(*b*) East Salween range, Thaungyin beat above Myawadi, Thaungyin beat below Myawadi (including Mehpaleh), Hlaingbweh, and Haungdaraw beats.

The formation of two beats in the Thaungyin forest is a tentative measure adopted with the view of ascertaining whether greater efficiency is likely to result from having the foresters and forest guards work collectively under the supervision of the forest ranger or senior forester, the dangerous condition of the forests for small parties being often urged as a plea for not patrolling and examining them.

III.—Ataran Division.

(*c*) Ataran range, East Zami, North-east Zami, Southern Winyaw and Ye, Amherst, and Modôn beats.

Elephant establishment.

92. During the year one carriage elephant was purchased for the West Salween division, and one belonging to the East Salween died. The other elephant of this division was also ill at one time but recovered. It is evident care must be taken to avoid overworking these animals and to keep them in good condition. Owing to the facilities for elephant-thieving these animals can rarely be let loose at night to graze,

and it has been deemed necessary to issue instructions for marches to be so regulated as to insure sufficient grazing time being allowed each day. Extraordinary high prices prevailed for elephants during the year, and it was consequently deemed advisable to defer purchasing any additional carriage elephants. The two depôt elephants at Moulmein continued in good condition throughout the year and did good work. The number of elephants in hand at the close of the year were two depôt and two carriage elephants.

Interchange of seed.

93. The following requisitions for seeds were received and complied with during the year:—

Colonial Secretary, Singapore.
- 1 packet padauk seed (*Pterocarpus macrocarpus*).
- 1 packet *Pterocarpus indicus*.
- 2 packets, large and small, *Wrightia tinctoria*.
- 1 packet pinle kanazo (*Heriteria littoralis*).
- 2 packets kôkko (*Albizzia lebbek*) and ywegyi (*Adenanthera pavonina*).

Deputy Conservator of Forests, Kurseong, 8 oz. seed of malaingbin (*Broussonetia papyrifera*).

The seeds received by the Department were of the *Pinus australis* through the Director of Agriculture, Rangoon; of mahogany from the Superintendent, Royal Botanical Gardens, Calcutta; and of *ceara* (*Manihot glaziovii*) from the Superintendent, Botanical Gardens, Peradenya, Ceylon.

Tours by Conservator.

94. On the 1st April Mr. Hill, Officiating Conservator, proceeded *viâ* Kawkareik to the Mèpalè forest, East Salween division, and returned by the same route on the 16th April. Between the 27th April and the 17th May Mr. Hill visited Tavoy and Mergui, and was absent at Rangoon in connection with the arrangement of the annual report from the 26th May to the 6th June. Kawkareik, the head-quarters of the East Salween division, and Myawadi on the Thaungyin river, were visited by Mr. Hill in November, and Thatôn and Thinzeik in the Martaban district by Mr. Popert, Officiating Conservator, in December. Mr. Popert again left Moulmein on the 10th January, and proceeding by boat up the Zami branch of the Ataran river as far as Kani visited the Kyunchaung reserve on the 17th; thence proceeding by boat to Natchaung, the Officiating Conservator marched to the Dali reserve and thence to the Zami river, and proceeding thence by boat arrived at Moulmein on the 25th January. The reserves in the Ataran division, with the exception of the Mayu, were all visited by Colonel Seaton, the Conservator, between the 17th February and the 8th March. The Conservator again left Moulmein on the 15th March, and proceeding *viâ* the Gyaing and Hlaingbwè rivers to Dagyèin-Paingkyôn crossed into the Lower Thaungyin valley by the Donat pass. The Winsaw and Mithawè reserves were visited on the 22nd, 23rd, and 24th, and the Daylaw route through the Kamakala reserve was followed thence over the Mèpalè east watershed hills into the West Mèpalè reserve, and on thence to the guard teh village. Returning thence on the 29th the Conservator recrossed the Donat at the sources of the Natpu river and reached Nyaungzauk on the Nabu on the 31st, whence he returned to Moulmein by the 2nd April.

Services of officers and subordinates.

95. The Conservator has reason to be satisfied with the manner in which the several officers in charge of the Salween, West Salween, Ataran, and South Tenasserim divisions have performed their various duties, and also with the work of the office and other subordinate establishment.

MOULMEIN:
The 29th June 1883.

W. J. SEATON, LIEUT.-COLONEL,
Conservator of Forests, Tenasserim Circle.

APPENDIX A.

Detailed record of progress in the different divisions of the Tenasserim Circle, 1882-83.

CHAPTER I.

Reserved Forests.

I.—SALWEEN DIVISION.

Preliminary sanction of proposed Martaban reserve.

In February the orders of the local Government were received on the proposals submitted for the reservation of the large tract, 20 square miles in area, on the Martaban range of hills. In accordance with the recommendation of the Demarcation Staff the reservation of 17½ square miles of this area was approved of but not as a State forest, it being deemed desirable to constitute it a village forest owing to the proximity of numerous villages and the little prospect of obtaining revenue from it. At the close of the year enquiries were in course of being instituted as to the precise villages likely to be benefited by the proposed village forest.

II.—EAST SALWEEN DIVISION.

1.—Area and Boundaries.

Increase of State reserves.

2. During the year the following additional areas in the Thaungyin forest district were notified as State reserves :—

	Sq. miles.	Acres.
Balaydu	2½	1,600
Gawle	58	37,120
Onekarein	53	33,920
Total ..	113½	72,640

whereby the total of the reserved forest area in this division has been increased from 113,430 to 186,070 acres.

Final demarcation of boundaries.

3. The boundaries of the abovementioned reserves and of the South Myawadi, Mithawe, and Winsaw reserves, sanctioned during the previous year, were all finally demarcated under the immediate supervision of Mr. Palmer, the Divisional Officer. Demarcation was effected by means of teak boards, 18″ × 4″ × 2″ in size, affixed to trees along the cleared boundary lines and pathways forming boundaries and wherever the boundaries are intersected by pathways or streams. The expenditure amounted to Rs. 788-2-0, or Rs. 5-14-0 per square mile demarcated, namely :—

	Rs.	A.	P.
Eight hundred and thirty-nine boards at 2 annas	104	4	0
Elephant-hire	504	0	0
Guides and coolies	179	14	0
Total ..	788	2	0

Inspection of boundaries and repair of boundary mark.

4. Portions of the boundaries of the Kyaukkot, Mègala, and Mèkanè reserves were inspected by the Divisional Officer and the east boundary of the former was rectified, the boards being found not to have been put up in their proper order. The boundaries of the East and West Mèpalè reserves were inspected by the forester in charge. The demarcation-boards on many portions of the boundaries were found in need of renewal ; the 4½-inch nails were observed to be too short for the purpose of affixing the boards to many of the trees, the boards being gradually forced off them by their rapid growth.

Selection of additional areas for reservation.

5. The time of the Divisional Officer was too much occupied with demarcation work to admit of any additional areas being selected for reservation ; the progress of demarcation work was also much hindered by the reluctance of the Karens to supply elephants consequent on an epidemic having broken out among these animals.

2.—Protection and Improvement.

Fire-protection of West Mèpalè reserve

6. Measures similar to those of the previous year were undertaken for the protection of the West Mèpalè reserve, a fire-trace 20 to 24 feet broad being cleared along the west boundary. The work was under the superintendence of Forest Apprentice Tha Gyaw till March, when that individual become ill with fever and had to make over charge to Forester Nga Kya. Three fires entered the reserve, the first at the end of March spreading over eight square miles, and the two others in April over seven square miles. The first of these fires crossed the fire-trace owing to early measures not having been taken for patrolling and keeping the trace clear. The other fires entered from the east, where it crossed the rocky hills and belts of evergreen forest which were believed to constitute a natural fire-resisting boundary.

Expenditure on fire-protection.

7. The expenditure incurred in clearing and cutting the fire-trace, about 20 miles in length, was Rs. 525-15-8, on establishment Rs. 119-4-0, and on patrolling Rs. 44 or a total of Rs. 689-3-8.

Teak taungya plantations, West Mèpalè reserve.

8. An area of 84 acres was cultivated with teak, but only on 23 acres was the seed found to have germinated. The Divisional Officer's countings give only 1,200 seedlings on 15·8 acres and 1,350 on 7·2 acres, but as the countings took place late in December 1882 a larger stock of seedlings will doubtless be found on these areas when the rains commence. The expenditure incurred was Rs. 9-9-6, nothing having been paid for the 7·2 acres the cultivation of which was undertaken by the forester in charge. As this is the commencement of teak-cultivation in this reserve and the cultivators are new to the work, the area undertaken this season will be limited to about 40 acres; the cultivators have also been induced to collect their own seed in future.

Breaches of forest rules.

9. A Karen was detected cutting a taungya in the Mithawe reserve and ordered to discontinue cutting. The final demarcation of the boundaries not having taken place, no prosecution was instituted.

III.—WEST SALWEEN DIVISION.

1.—Area and Boundaries.

Increase in area of State reserves.

10. During the year under review the Pachaung State reserve, 40 square miles in area, was sanctioned by the local Government, thereby increasing the area of the State forests in this division from 104 to 144 square miles.

Areas proposed for reservation.

11. The reservation of the proposed Dagwin reserve, 10 square miles in area, was approved of by the local Government, but final sanction was deferred pending the result of certain proceedings by the Assistant Commissioner in charge Salween district with reference to additional claims likely to be instituted. The submission of proposals in the case of the Myintabye forest tract was delayed, as further information makes it evident that the advantages of reservation are somewhat doubtful, several villages being found located in it.

Selection of areas suitable for reservation.

12. The Divisional Officer, Mr. Ward, was not in a position to undertake the examination and selection of any additional areas. A valuable tract between Dagwin and Kyaukhnyat on the Salween was however in part examined and will be again visited next season.

Final demarcation of boundaries.

13. The boundaries of the newly-sanctioned Pachaung State reserve, 40 square miles in area, and the Dagwin proposed reserve were finally demarcated, the work being undertaken, in the case of the latter reserve, in anticipation of early sanction. Teak boards 18″ × 4″ × 2″ with serial numbers were affixed to suitable trees along the boundaries, but no boundary lines were cleared, most of the boundaries being natural boundaries or pathways which the Karens are in the habit of clearing yearly. The expenditure incurred was for 297 boards Rs. 37-2-0, elephant-hire Rs. 142, and cooly-hire Rs. 37-8-0, making a total of Rs. 216-10-0.

Improvement, addition to, and renewal of boundary marks of old reserves.

14. The boundaries of all the reserves, wherever such were not natural boundaries, were cleared and 82 boards added for the better demarcation of the Wamu reserve. A few boundary-boards were replaced and some additional boundary-boards also put up in the Sinzwè, Kahilu, and Ônkangyi reserves, some of them being the large boards of the old pattern, which are preferable for marking the entrance of pathways into reserves. The total expenditure incurred in the above work amounted to Rs. 25-4-0.

2.—Protection and Improvement.

Fire-protection of the Sinzwè reserve.

15. With the exception of 3 acres burnt on the 27th March, the entire Sinzwè reserve, 14 square miles in area, was successfully protected. The fire, the cause of which has not been ascertained, burnt over chiefly bamboo forest and scorched 49 young teak trees in the 1879 plantation. Including cost of Kamu cooly establishment, Rs. 384-9-6, the expenditure for protecting this reserve amounted to Rs. 631-5-6. The reduction in expenditure since 1880-81 appears to be due to dispensing with Karen contract labour *in toto* and engaging extra Kamus by the month, and likewise to the discontinuance of the fire-path between the Paing stream and Yunzalin river now not needed since the old Papun high road has been opened up for traffic. As the Kamus are particularly adapted to jungle labour of every description and as a rule are trustworthy, it is very satisfactory to be able to supplement the regular Kamu establishment by such men on monthly pay during the dry months, and eventually it may be possible to dispense with such an establishment altogether, the entertainment of which involves despatching an agent to Zingmè and beyond that place, where Kamus are generally procurable in some numbers.

Fire protection of Mèwaing reserve.

16. This reserve, 7,360 acres in extent, was successfully protected by the local forest guard, assisted by the Karens, at a cost of Rs. 8. The villagers of Hami again undertook the clearing of the Kyunmala stream and assisted in fire-tracing the path thence to the Kwikyuaing.

Fire-protection of the Mènanwè reserve.

17. The forester in charge, aided by the Karens in the reserve, similarly protected the Mènanwè reserve, 3,840 acres in extent, at an expenditure of only Re. 1.

Fire-protection of Wamu reserve.

18. This small reserve, only 3 square miles in area, and lying immediately north of Papun, was successfully fire-traced and protected by the forest guard in charge at a cost of Rs. 10, a fire-line 10 feet broad being cut on the south side and the Papun high road being also cleared on the west side.

Fire protection of Kahilu reserve.

19. The area liable to be burnt within this reserve, namely, 1,280 acres, was successfully protected by the forester in charge at a cost of Rs. 26.

Fire-protection of Dôndami reserves.

20. Additional precautions were taken for the protection of the Ônkangyi reserve, which is the most favourably situated of the Dôndami reserves, for protection against the inroads of fire from the large stretches of elephant-grass flanking the Dôndami river and extending in long veins within the reserves. On the west side from the Dawsangyi stream to the Yewaing stream, a distance of nearly eight miles, the reserve was protected by a good fire-path 18 feet broad formed by the Karens of three villages at a cost of Rs. 102. The Divisional Officer, Mr. Ward, is in hopes of the Karens eventually being induced to use this path as a road. Along the south side of the reserve, as an experiment, buffaloes were made to trample down the kaing-grass to a width of 20 feet at the commencement of the rains (June 1882). The results were satisfactory, and the trampling process will be continued over a larger area, both at the commencement and end of the rains, until the grass disappears altogether. Although two fires broke out in March on the north-east side between the Dawsangyi and Dawsangale stream, yet upwards of 10 square miles of the reserve on the south side were successfully protected. The efforts made by the Karen cultivators for the protection of the Bilakatkyi reserve proved unsuccessful, fire breaking out twice in March and sweeping over its whole area. It is to be regretted that the contiguity of this reserve and the Tagelaung reserve to the Dôndami kaing-grass areas and their exposed position as regards the south winds preclude the adoption of any regular fire-protection measures, except at a cost not commensurate with their value. The origin of the fires could not be ascertained; but doubtless they were caused by burning fragments of grass being carried in by the wind, it being not an uncommon occurrence for weaver-birds' nests to be blown a quarter of a mile and more when ignited.

Teak taungya plantation in Sinzwè reserve.

21. Owing to the surplus seed of the previous year being used, operations proved almost a total failure. On 16 acres cultivated, the average number of plants counted at the end of the rains was only from 26 to 44 per acre. It is satisfactory to know that the Divisional Officer has now made it compulsory for each of the cultivators to collect at least two baskets teak seed at Re. 1 the basket, the excess quantity required by them being supplied by the Department. The use of old seed will also be discontinued. Owing to the conditions in regard to teak seed fewer cultivators have come forward this year, but when once they are accustomed to collect seed there will be no difficulty in procuring labour. The expenditure incurred was Rs. 61-8-0 for seed and taxes, nothing being paid to the cultivators. The plantations of 1881 were cleared partly by the Kamu establishment and partly by Karen cultivators; and clearing operations were also carried on during the rains in most of the older plantations with the Kamu establishment to free the crowns of the

trees in danger of being suppressed or injured by the bamboos of rapid growth and other jungle. The expenditure incurred amounted to Rs. 624-9-6 for wages and rations of Kamu establishment and Rs. 64-8-0 to 10 Karen cultivators, or Rs. 689-1-6 in all.

Teak taungya plantations in Mèwaing reserve.

22. An area of 15 acres was successfully cultivated with teak at the sources of the Nokilaw in the Mèwaing reserve, the countings showing an average of 402 plants per acre. The expenditure, including taxes and cost of seed, amounted to Rs. 83-9-3, or Rs. 5-9-2 per acre. During the rains the trees on 30 acres of 1881 and 18 acres of 1880 were well cleared and weeded at a cost of Rs. 24.

Teak and thitka cultivation in Kahilu reserve.

23. In the Kahilu reserve 6 acres were sown with teak near the Wathulaw stream and 4 acres with thitka seed at the sources of the Nyathwelaw but with very indifferent results, the countings giving only 25 teak plants per acre and four of thitka. Good thitka seed was apparently not procurable, and to this fact and the use of the surplus teak seed of the previous year must the failure be attributed. Only Rs. 23-10-0 was paid on account of taxes and seed. Three of the padauk plantations of the previous year were thrice carefully weeded during the rains at a cost of Rs. 5; and the young trees in the plantations of 1879 and 1880 were cleared wherever necessary by the forester in charge.

Teak taungya-cultivation, in Wamu reserve.

24. On the 2 acres cultivated in this reserve only 350 plants were counted at the close of the rains, but doubtless more seedlings will show themselves during the present rains as the seed appears to have been of fair quality. The cost of cultivation amounted to Rs. 6-7-0 per acre, including taxes and cost of seed. The plantations of 1881, covering 10 acres, were well weeded and cleared by the forest guard at a cost of Rs. 7-8-0; and the older plantations also were visited by him and similar work performed at an expenditure of Rs. 4.

Teak taungya-cultivation in Ônkangyi reserve.

25. To the south of the Ônkangale stream 8 acres were successfully cultivated with teak at a cost of Rs. 42-8-0, exclusive of taxes, or Rs. 5-5-0 per acre. The average number of plants per acre was found to be 513, the highest obtained this season. The plantations of 1881 were weeded by the cultivators, but the work not being satisfactory no payment was made.

Teak taungya-cultivation in Bilakatkyi reserve.

26. In this reserve 6 acres were planted with teak on the east bank of the Tipado stream at a cost of Rs. 23, exclusive of taxes. The countings gave 235 plants per acre. The plantations of 1880 and 1881, aggregating 16 acres, were weeded but not paid for, the work having been badly performed.

Breaches of forest rules.

27. No breaches of forest rules were reported within the State reserves.

Communications and buildings.

28. A sum of Rs. 500 was sanctioned for the construction of a substantial rest-house at the Kyunchaungwa for the Sinzwè reserve, but the requisite skilled labour not being procurable, a strong bamboo structure on pyingado posts with outhouses complete was erected at a cost of Rs. 64-8-0. If rethatched from time to time these buildings may be expected to continue serviceable for three or four years.

SOUTH TENASSERIM DIVISION.

1.—Area and Boundaries.

No sanctioned State reserves.

29. No State reserves have yet been sanctioned in this division.

Mintha proposed reserve.

30. No orders having been passed on the demarcation report submitted during the previous year on the Mintha proposed reserve, 100 square miles in area, it was deemed advisable on the 9th October to re-notify the boundaries in accordance with the new Forest Act, the Deputy Commissioner of Tavoy being appointed Forest Settlement Officer to enquire into claims. Up to the close of the year no orders had been passed on the proposals.

Upper Tavoy proposed reserve.

31. The reservation of 460 square miles, carefully selected at the sources of the Tavoy river by Mr. Aplin, the Divisional Officer, having been approved of by the Deputy Commissioner and the Conservator, the notification required by section 6 of the Burma Forest Act was issued on the 26th October, and the Deputy Commissioner of the district appointed for the time being Forest Settlement Officer. Later on Mr. H. G. Batten was nominated Forest Settlement Officer from the middle of January, but the order was cancelled in January and instructions were received to suspend demarcation work this season.

Completion of survey and examination of Upper Tavoy forests proposed for reservation.

32. During the previous year Mr. Aplin, the Divisional Officer, executed linear valuation surveys, combined with a survey with compass and chain, over different routes and jungle pathways, aggregating 413 miles in length, in some of the principal portions of the Upper Tavoy forests. To complete the information thus obtained,

and obtain full materials for the compilation of a map of the entire area and surrounding localities, Mr. Aplin continued the work this past season over the following areas:—

(1) localities drained by the Meke and Memapan streams, feeders of the Zinba.
(2) east of Migyaunglaung and between it and the mouth of the Meke stream;
(3) between the Kan, Kwagani, and Kaleinaung streams;
(4) tract drained by the Mayan and Kawle, tributaries of the Kaleinaung stream; also by the Yengan, Mintha, and Eindayaza streams flowing into the Hinze basin.

The surveys thus executed, extending over a length of 206 miles when plotted, with those of the previous year, will furnish a trustworthy map of the whole area selected for reservation, where all the most important forests are situated. This will meet a great want, as the only map procurable is the one compiled some years ago upon very untrustworthy data by the late Lieutenant Bagge, R.E., on as small a scale as 8 miles=1 inch and consequently destitute of all details. The Divisional Officer, Mr. Aplin, reports regarding the selected area: "The people of three villages within it and on its borders, besides those residing in "numerous scattered huts, have been in the habit of cutting their yas almost exclusively "in the pyingado forests, which are estimated to cover about 40 square miles, within the "selected area. It is specially with a view to restricting the damage done by these "taungya-cutters that the reserve has been proposed, as our best pyingado forests are fast "disappearing or being ruined. There is also no reason why teak taungya plantations "should not be a success here on the rich soil bordering the stream, which are now prin-"cipally clothed with bamboo or scrub ponzo growth." The valuation surveys, the results of which are noted in statement I, show the following trees to be more or less abundant in addition to the more common trees: thingan (*Hopea gratissima*), pyinma (*Lagerstræmia regina*), thitka (*Pentace burmanica*), magale (*Hopea sp.*), karawe (*Alscodaphne sp.*), kanazo (*unknown*), anan (*Fragræ fragrans*), koko (*Albizzia lebbek*) tagu (*unknown*), kaunghmu (*Parashorea stellata*), kadut (*Hopea?*), yamane (*Gmelina arborea*), thitgado (*Cedrela toona*), kaban (*unknown*), thitya (*Schima sp.*), kanyin (*Dipterocarpus*), taungpeinnè (*Artocarpus chaplasha*), palawa (*Garcinia*), thitkale (*Pentace*), nantayôk (*Altingia excelsa*), che (*Syndesmus tavoyana*), thitmin (*Nageia latifolia*), kyayzeh (*Laurus sp.*), manthin (*Cinamomum sp.*).

2.—*Protection and Improvement.*

Cultivation of the para India-rubber (*Hevea brazilensis*) at Mergui.

33. Of the eight young *Hevea* trees in the forest office compound, the survivors of the batch of plants received from Dr. King, Calcutta, in 1877, four were so injured by the accidental fall of a cocoanut tree that it was deemed advisable to take as many cuttings from them as was possible. Upwards of 42 cuttings were obtained, but one of the young *Hevea* trees succumbed to the injuries received. The seven remaining *Heveas* have attained the following sizes:—

	Height Ft.	in.	Girth. In.	
No. 1	32	0	18	
" 2	22	8	18	(cuttings taken)
" 3	27	0	15	
" 4	23	4	13½	
" 5	10	4	..	(cuttings taken)
" 6	11	5	..	(ditto)
" 7	15	0	6	

The young *Hevea* trees in the Mergui plantation are now reduced to 54 in number, six having died in consequence of injuries by buffaloes breaking into the plantation at night. The owner was fined and the buffaloes have since been removed from the locality. Of all the cuttings put out two years ago only two remain, measuring respectively 10 feet and 8 feet in height, and it would appear that with all the care bestowed on *Hevea* cuttings and the adoption of various methods of treatment but few strike and take root. Some appear to do well for one or two years, but without developing roots, and suddenly wither and die. Of the 42 cuttings recently set out, only one is in a thriving condition. None of the older trees have as yet flowered.

Cultivation of *Castilloa elastica*

34. The two *Castilloa* trees in the Mergui plantation are doing well and measure—

	Height. Ft.	Girth. In.
No. 1	13	13½
" 2	9	9

No cuttings were obtainable from these trees.

Cultivation of ceara (*Manihot glaziovii*).

35. The cultivation of the ceará, which had hitherto proved eminently successful, received a severe check during the past dry season from a totally unexpected quarter. White-ants were found attacking a large number of the older trees (now three to four years old) in a most peculiar manner,

the large lateral roots being first destroyed or eaten through and then the centre of the tree being attacked upwards to a considerable height. The attacks commenced when the trees were leafless and there was consequently nothing in their appearance to excite suspicion. Again, many of the trees thus attacked threw out fresh leaves, and it was only on opening up the soil at the roots that their dangerous condition could be discovered. By reason of the lateral roots having been severed many of the trees fell down and others fell over on the slightest pressure. It is surmised that the numerous dead stumps and logs lying about the plantation may have attracted the white-ants to the spot in very large numbers, and as an experiment the clearing off of all dead wood from an area of 4 to 5 acres has been commenced. The Superintendent of the Royal Botanical Gardens, Peradenya, Ceylon, has been communicated with and it would appear that Mergui, with a mean annual rainfall of 165 inches, may possess too moist a climate for the ceara, as it flourishes in Ceylon, where the mean annual rainfall varies only from 34 to 94 inches in different parts of the island. According to latest reports to hand, the number of ceara trees undisturbed by the white-ants was as follows:—

Of four years' growth	370
Of two to three years' growth	160

Upwards of 1,000 cuttings were obtained from the injured trees, and of these 217 are doing well. During the year about 2,000 seeds were collected from the older trees, and from these and a supply of about 1,000 seeds from Ceylon 1,050 seedlings were raised. The failure of so large a proportion of the seed was due to the attacks of black-ants, the embryo in the seed being a great attraction to them.

Cultivation of other species in Mergui plantation.

36. The two vanilla plants since their removal to the shade of high-tree forest continue healthy, although not much grown. Doubtless their long exposure in the plantation has injured them somewhat and they will take time to recover. The plants put out by the Deputy Commissioner under shade have grown well and one of them has flowered. The 22 akyaw trees are healthy and have grown somewhat, being on an average 6 feet in height. Of the four *Ficus macrophylla* plants in hand, one is a little sickly and the remainder are vigorous and have attained an average height of 3 feet. The *Broussonetia papyrifera* (malainben) plants, which were set out in the lower part of the plantation, have nearly all died off; those on higher ground near the plantation bungalow, 191 in number, are however doing well and have an average height of 4 feet. Owing to the attacks of insects the mahogany trees have been reduced from 53 to 33 in number, and it would seem that here as elsewhere the trees when young are very liable to the attacks of a species of borer during the dry months. Of the rain trees (*Pithecolobium saman*) 117 are reported as thriving.

Expenditure.

37. The expenditure during the year on the entire Mergui plantation was as follows:—

	Rs.	A.	P.
Establishment	1,024	0	0
Coolies	986	10	10
Miscellaneous	61	5	0
Total ..	2,071	15	10

The ultimate success of the cultivation of the *Musa textilis* at Tavoy continues doubtful, the soil apparently being too dry and sandy for the plants during the dry season when they are liable to die down if not watered; in the rains they revive and throw out shoots from below. By transplanting these shoots the number of plants in hand in the rains was increased from seven to twelve, and of these nine were forwarded to the Mergui plantation. The total number of plants and shoots at the end of March was 30.

Cultivation of *Musa textilis* at Mergui plantation and Tavoy.

38. The first site selected at Mergui for the *Musa textilis* also proved uncongenial, and the plants received from Moulmein in 1881, 34 in number, in most parts withered down; some, too, were injured by monkeys. The nine plants received from Tavoy in 1882 are doing well and have thrown out 11 young shoots from below, which promise to develop into fine strong plants.

Communications and buildings.

39. The forest office at Mergui was rethatched and sundry repairs of outhouses were executed at an expenditure of Rs. 70 and Rs. 8-12-0 respectively. Two thingan boats of 60 baskets size were purchased at the rate of Rs. 55 each for use in the Tavoy river and proved to be of great service to the blasting party during the dry season.

ATARAN DIVISION.

1.—*Area and Boundaries.*

Areas proposed for reservation.

40. No changes have taken place in the areas of the State reserves in this division, which are estimated to cover 155 square miles. As recorded in the previous year's report, the reservation of an area of 320 square miles selected by Mr. Aplin at the sources of the Yèh river was preliminarily approved of by the Deputy Commissioner of Amherst. The notification required by section 6 of the Burma Forest Act was issued on the 26th October and the Deputy Commissioner appointed a Forest Settlement Officer, but later on in the season the services of a Civil Officer were not available for this duty.

Inspection, rectification, and improvement of boundary lines and renewal of boundary marks.

41. The boundaries of the Natchaung, Gaunggyi, Kyunchaung, Thingannyinaung, Pakabo, and part of the Dali reserve were inspected by Mr. Murray and the demarcated lines cleared to admit of the passage of elephants. A number of boards were found to be cracked and a few burnt, especially on Ip trees; others again were found to have been knocked off by trees falling against them; and of some there were no traces, they having evidently been consumed by the fires. Wherever necessary the boards were renewed and a few additional boards affixed at the junctions of streams and at points where the boundary line takes a conspicuous turn. All the trees to which boards were affixed were also marked with a particular hammer. In the case of the Natchaung and Kyunchaung reserves a slight re-adjustment of the boundary lines was also made at the south-west corner of the former and at the north-west angle in the boundaries of the latter. On the whole Mr. Murray found the demarcated boundary lines everywhere much overgrown, except in the Dali reserve; and it is evident that a simple elephant track is insufficient and should give place to broader cleared lines.

Expenditure.

42. The expenditure incurred was as follows:—

	Rs.	A.	P.
Two hundred and sixty-two teak boards painted white ..	32	12	0
Transport of boards by boat	46	0	0
Elephant-hire	110	0	0
Guide and cooly hire	144	10	6
Total ..	333	6	6

2.—*Protection and Improvement.*

Fire-protection of Dali reserve.

43. The fire-traced portion in this reserve was reported as successfully protected during the previous year, but late that season fire entered and swept over the entire area with the exception of the teak plantations, 54 acres in extent. The forester in charge, who was a new hand, omitted apparently to report this in time as well as to report the precise area fire-traced. During the year under review operations were limited to an area of 154 acres, comprising 62 acres of teak plantation and 92 acres of teak forest. The whole was successfully protected till early in April, by which time the surrounding area had been overrun by the fires and when no danger from outside was anticipated. The teak forest was then however fired by certain parties, unknown, and 90 acres of the forest portion and one acre of the older plantation were burnt. As has been previously reported, this reserve is unfortunately the resort of bad characters from the frontier; but in this instance a party of villagers fishing in the Mwtharank stream are believed to have caused the fire. The cost of fire-protection was Rs. 62 for cutting and clearing fire-lines and Rs. 12 for patrolling, or Rs. 74 in all.

Fire-protection of Kyunchaung reserve.

44. The area attempted was the same as during the previous year and the work was again carried out by Forest Ranger Maung Nyogale, assisted by the forest guard and five patrols. With the exception of 40 acres burnt near the south boundary before the completion of the fire-trace and 10 acres burnt near the west boundary on the 18th April, the reserve was successfully protected. In the latter instance the fire is attributed to elephant thieves, traces of whose temporary camp were found close by. The expenditure amounted to Rs. 127 for cutting and clearing fire-lines and Rs. 125 for five patrols from the 19th April to the 20th May, or in all Rs. 252.

Teak taungya plantations in Dali reserve.

45. Eight acres were successfully cultivated with teak in this reserve, the countings by the forest guard showing as high an average as 1,176 plants per acre. The amount paid was Rs. 8 per 1,000 plants and Rs. 18 for 12 baskets seed collected by the forester near the reserve. The trees in the older plantations were cleared at an expenditure of Rs. 22.

Teak taungya plantations in Kyunchaung reserve.

46. In this reserve eight taungyas, about 30 acres in extent, were cultivated with teak but again with indifferent results, countings showing only 3,776 plants at the end of the dry season, or 123 per acre. Thirty baskets old seed of the previous year as well as

30 baskets supplied from Moulmein were used, and to this fact and inattention to details on the part of the forest ranger must be attributed the poor results obtained. For the toungyas of this rains only fresh collected seed has been used, but next dry season the forest ranger will be held responsible for collecting seed in or near the reserve. The expenditure incurred was Rs. 30-3-3 for the plants and Rs. 182-8-0 for seed and taxes. The 25 acres of the plantation of 1881 were weeded at a cost of Rs. 18.

Thingannyinaung plantation in Thingannyinaung reserve.

47. This small experimental plantation, 16 acres in extent, of 1856, was visited by the Conservator and the Divisional Officer, Mr. Murray, at the end of February, but no works of improvement were undertaken in it. The Thèbyu and Thingannyinaung streams and a belt of evergreen forest form natural fire-resisting boundaries and preclude the adoption of any special measures for fire-protection.

Mahogany experimental plantation near Amherst.

48. During the year this small experimental plantation, 1½ acres in extent, was not extended. Of the 90 young trees in hand at the close of the previous year only 63 were alive in May, as many as 27 having succumbed to injuries caused by insects boring into and killing their terminal shoots and branches. The largest is 9 feet 4 inches in height, and the average height 5½ feet.

Mahogany plants at Moulmein.

49. The five plants in the office compound are thriving. There are also eight vigorous seedlings in hand ready for transplanting.

Breaches of forest rules.

50. Mr. Murray while examining the Gongyi reserve discovered a I class teak tree illicitly girdled a little within the east boundary. Watho, the Karen sub-contractor, or some of his employés engaged from the Siamese side, are suspected of having girdled this tree in January or February, but no evidence is as yet forthcoming against them.

Communications and buildings.

51. The only permanent rest-house in this division is one at Natchaung guard village, near the Natchaung reserve. In the Dali and Kyunchaung reserves, owing to the cultivators yearly shifting their village, only temporary rest-houses can be erected.

3.—*Girdling operations.*

Girdling arrangements for year.

52. The sanction of the local Government was received to the girdling of 2,500 teak trees outside reserves, also 2,500 pyinma and 1,000 trees of other kinds, or 6,000 trees in all. The allotment to the several forest divisions was as follows :—

Division.	Teak.	Pyinma.	Other kinds.
East Salween	2,000	1,000	150
West Salween	500	700	200
Ataran	..	500	550
South Tenasserim	..	800	100

A summary of the results of the work in the different divisions will be found in Appendix D.

Girdling operations in East Salween division.

53. In this division the following trees were reported as girdled at the close of the working season :—

	Teak.
Lower Thaungyin (within the Mithawe reserve) ..	1,021 at a cost of Rs. 276-4-0
Ditto (outside reserve)	489 at a cost of Rs. 158-8-0
Haungdaraw (in unreserved forest)	564 at a cost of Rs. 198-2-0
Total teak trees girdled ..	2,074
	Pyinma.
Haungdaraw-Kyeikchaung	1,000 at a cost of Rs. 339-14-0
	Padauk.
Haungdaraw-Londamawchaung	150 at a cost of Rs. 103-4-0

The direct infringement of Government orders involved in girdling within the Mithawe reserve arose out of the omission on the part of Mr. Palmer, the Divisional Officer, to furnish the forest ranger with information regarding the boundaries of this reserve, which, although sanctioned on the 14th March 1882, had not been demarcated. It was assumed that the forest ranger was cognizant of a reserve having been selected in that locality and knew the boundaries; but the result showed that neither he nor the Karens whom he foolishly consulted instead of referring to his superior had any knowledge of the said boundaries, girdling operations being there and then commenced within the Mithawe reserve and continued until 1,021 teak trees had been killed. Owing likewise to the

omission to issue detailed instructions, full particulars regarding the position of the girdled trees and the requisite sketch-map have not been received. No revision of the girdling work has yet taken place on the part of the Divisional Officer, but the Conservator examined portions of the Mithawe reserve as shown in statement I (appended to this report), and found, as might have been expected, considerable injury had been done in places by the indiscriminate girdling of all teak trees 6 feet in girth and above without reference to the proximity and sufficiency of seed-shedding trees. Between the Mithawe and Tipawkaw streams the trees appear on the whole to have been well selected in respect of quality by the forester to whom the work was delegated by the forest ranger. The survey showed however 8 per cent. of the trees to be undersized. Along the bank of the Thaungyin river the forest ranger more or less superintended the work, but on the steep spur north of the Delaw stream it appears to have been left wholly in the hands of the Karens. Full particulars have not yet been received regarding the work on the Haungdaraw, the only information submitted being that the trees were selected on or near the Ansa stream, a tributary of the Haungdaraw; but from the reports of the Karens it would appear that a large number of undersized trees and trees of bad growth has been girdled. No revision also has yet taken place of this work and of the Lower Thaungyin girdled trees outside the reserves, nor of the pyinma and padauk trees girdled in the Haungdaraw.

Regirdling of teak trees reported as girdled in 1881.

54. It was found necessary to regirdle 278 of the teak trees selected by and girdled under Mr. Thellusson's supervision in 1881; they include most of the largest and oldest trees selected, generally somewhat unsound in the centre and hence very difficult to kill owing to the growth of sapwood in the inner crevices. The failure however in the girdling of these trees in the first instance can only be attributed to want of revision as the work was in progress. The work of regirdling was carried out by the local forester and involved an expenditure of Rs. 34-12-0.

Girdling operations in West Salween division.

55. Outside the reserves in the Upper Salween forests 538 teak trees were killed by the Karen contractor, Lamuhè, to whom the work was delegated consequent on the trees standing mostly in steep rocky places and occurring in isolated groups, scattered over large areas. Mr. Ward, the Divisional Officer, examined 41 of the girdled trees north and south of the Natchaung and 12 on the Kolaw stream, and with reference to the general character of the forest reports; "Very few II and III class teak trees were seen near these streams, "but on the hills are many trees 4 feet and 4½ feet in girth. The ground in some "places is quite impassable (except to people with bare feet) on account of the slip-"periness of the slopes and the limestone boulders." One of the girdled trees was found to be undersized, being a little below 6 feet in girth, but the selection in respect to quality and soundness of the trees was all that was desirable. Seven hundred and twenty-eight pyinma and 210 taukkyan trees were also girdled on the banks of the Dondami and some of its feeders. Of the former, 191 trees were selected within the Onkangyi reserve and 235 on the borders of the Tagelaung reserve. Mr. Ward examined 330 of these trees and reports the selection to have been best in the Onkangyi reserve, the girdled trees representing one-third of the large seed-shedding trees and being from 6 to 7½ feet in girth. Of 95 girdled trees examined outside the reserves, four were found to be undersized. The cost of girdling the pyinma and Taukkyan was Rs. 234-8-0, to which has to be added Rs. 50, pay of girdling gaung for two months, but of this only Rs. 167-4-0 was charged off in the accounts of the year under review.

Girdling work in Ataran division.

56. In this division the following trees were girdled in the unreserved forests drained by the Gwingale stream and its feeders:—

	Trees. No.	Cost. Rs.	A.	P.
Pyinma	500	125	0	0
Padauk	150	75	0	0
Petwun	150	37	8	0
Ingyin	150	75	0	0
Thingan	100	50	0	0
Total ..	1,050	362	8	0

In addition to this expenditure a sum of Rs. 136-11-0 was spent on one girdling gaung at Rs. 25 per mensem and one peon on Rs. 15 for four months, thereby making a total expenditure of Rs. 499-3-0. Much time was occupied in the selection of the padauk, ingyin, and petwun trees, these species being found much scattered and, in the case of petwun, full-size trees being very scarce. The work while in progress was inspected by the Conservator and Mr. Murray, the Divisional Officer, in February, and again in March by the Divisional Officer. Two out of 35 trees were found to be badly girdled and not dead, and the pyinma trees having been for the most part marked on the sapwood orders were given by the Conservator for the examination and remarking of all the trees. The Divisional officer in revising the work inspected 193 trees and found the work on the whole to have been satisfactorily performed.

57. In this division the work was limited to the girdling of 300 pyinma and 100 thingan trees along the banks of the Kaleinaung stream, the upper part of the Tavoy river. The work was entrusted to Forester Maung Su and completed between the 26th January and 8th February at a cost of Rs. 108-12-0, inclusive of Rs. 8-12-0 for boat-hire. Mr. Aplin, the Divisional Officer, examined 234 of the pyinma and 55 of the thingan girdled trees and found 11½ per cent. of the former and 35 per cent. of the latter a little below 6 feet in girth, the remainder varying between 6 and 10 feet in girth. Thingan trees, about 6 feet in girth, were found to be very scarce owing to the heavy fellings for the boat trade, but the young growth is tolerably abundant and there are large numbers of trees of good growth from 1½ to 4½ feet in girth likely to yield valuable timber in the future.

South Tenasserim division.

58. During the previous year a commencement had been made towards opening up the obstructions in the Mintha stream, but on the recommendation of the Divisional Officer it was decided to suspend operations until a complete examination could be made of the entire channel of the Mintha, there being reason to believe that the obstructions were more formidable than at first reported.

Blasting operations in South Tenasserim division.

59. During the year operations were carried on, first, in the upper part of the Tavoy river and resulted in the opening up of the following obstructions, constituting hitherto a source of great danger to the passage of rafts of timber and bamboos and boat-hulls from the upper forests:—

(1) the Yèzogyi rapid, comprising the Paukhla and Payakyauk rocks (measuring 13,320 cubic feet); the Aungbo, Kyaukni, large rocks, and several minor rocks, all of granite;

(2) the Yèzotha rapid, consisting of a large wall of rock of a slaty consistence, measuring 12,800 cubic feet; the Yèzothaouk rock measuring 5,760 cubic feet; the Paukhlangè and Gaungyôk, large rocks;

(3) the Ngasaing granite rocks, three in number, of moderate size;

(4) the Shintabyi rapids, comprising two large granite rocks, measuring 9,200 cubic feet, and some minor ones;

(5) the Kyakôn rapids, consisting of three large rocks.

Blasting work in Tavoy river.

The above series of obstructions occupied the blasting party under Overseer LeBreton from the 10th December to the 6th April 1883.

60. The blasting party then moved to the Mèke, a large tributary of the Zinba stream, and by the end of April removed a number of rocks at the two waterfalls known as the Mèke kadin, where there is an abrupt fall of 12 feet in two places, or 24 feet in all, in the bed of the stream. The work was inspected by the Divisional Officer in all the obstructions except the Kyakôn rapids and Mèke kadin. The expenditure incurred was on—

Blasting work in Mèke stream.

	Rs.	A.	P.
Blasting establishment and cooly labour..	1,441	8	6
Cost of 1,200lbs. dynamite and detonators	2,093	4	0
Freight and other charges	987	10	8
Total. ..	4,522	7	2

61. The site of the blasting operations of the previous year known as the Minthamibya kadin was inspected by the Conservator a little after the close of the official year under review. The work was found to have been well executed, a passage being formed which will admit of boat-hulls being floated through at this point. Having regard however to the boasted powers of dynamite, it was expected that with so large a quantity of dynamite greater results would have been obtained. The extraordinary hardness of the rock, chiefly solid granite, which rendered boring a very slow process in a great measure explains it, although numerous borings of no great depth it appears were resorted to, which of course tends to increase the expenditure of dynamite in a ratio not proportionate with results, in order to save time and labour, and thus much dynamite was expended which would have given better results with deeper borings. Enquiries made of the leaseholder of the Titawle mines also tend to show that more satisfactory borings can be effected by the use of short jumpers worked in by a heavy mallet instead of by the long jumpers which are simply allowed to fall by their own weight. It was also ascertained that the professional English miner employed at these mines was of opinion that dynamite loses some of its explosive power by being kept in a warm climate.

Inspection of site of blasting operations of previous year in Mintha stream.

MOULMEIN:
The 29th June 1883.

W. J. SEATON, LIEUT-COLONEL,
Conservator of Forests, Tenasserim Circle.

REPORT

ON

FOREST ADMINISTRATION

IN

THE PEGU CIRCLE

For the year 1882-83,

BY

H. C. HILL, Esq., Offg. Conservator of Forests.

INTRODUCTION.

The Burma Forest Act of 1881 and rules made under that Act.

UNDER notification No. 24 (Forests), dated the 25th March 1882, the Burma Forest Act, 1881, came into force on the 1st July 1882, and at the same time notifications, rules, and departmental directions were published under the Act. Revised notifications, rules, and departmental directions, embodying some slight alterations, were notified by the Chief Commissioner under notifications Nos. 4—12 (Forests), dated the 10th January 1883, and these are appended to the report. The Act itself provides for the reservation and protection of reserved forests, and the only rules made by the Chief Commissioner in regard to reserves are those regulating hunting, shooting, fishing, &c., and the leaving of any fire burning in such a manner as to endanger a reserved forest. In unreserved forests the rules under the Act differ from those previously in force mainly in the following points :—

(*a*) Excluding teak reserved by the Act, the number of reserved trees has been reduced from 16 to 6, the rates have been raised, and the power of granting free licenses for reserved trees has been confined to Commissioners of Divisions and Conservators of Circles.

(*b*) A low rate of duty has been fixed for all unreserved trees extracted for purposes of trade ; but the use of such timber for agricultural or domestic purposes remains unrestricted within the revenue circle, or within a distance of five miles from the place where it is used. If required for the building of bridges, rest-houses, or other works of public utility, its use is entirely unrestricted. Provision has been made in the new rules for the passing, reporting, marking, and control of timber in transit, as well as for the registration of hammer-marks.

The powers and duties of Forest Officers of different ranks have been defined, and provision made for the payment of rewards to informers. In addition to the rules made by the Chief Commissioner under the Act, certain departmental directions have been published for the guidance of Forest Officers and for the information of the public. The disposal of trees of the reserved kinds, other than teak, standing upon land of which a grant or lease has been given, cannot be provided for under the Burma Forest Act. It is proposed to make a rule under the Land and Revenue Act which shall provide for the sale and marking of such timber.

CHAPTER I.

AREA AND BOUNDARIES.

1.—Area.

No actual increase of the area of reserved forests.

AN inevitable result of the coming into force of the British Burma Forest Act, with the lengthy procedure prescribed under Chapter II for the formation of reserves, was that not a single tract was added during the year to the area of reserved forests.

Changes in the areas of the Hmawbi and Kyetpyugan reserves.

2. The Hmawbi and Kyetpyugan reserves were found by actual survey to contain 1,846 and 940 acres and not 1,700 and 1,800 as originally estimated, and Form No. 49 has been corrected accordingly.

Cause of delay in final sanction of certain reserves previously reported on.

3. It was ruled that with regard to all proposed reserves, the final sanction for which had not been obtained before the 1st of July, the provisions of the new Act should be carried out in full. In some instances where the previous enquiry was considered sufficiently complete, the carrying out of these provisions became little more than a matter of form; but, as the periods prescribed by the Act had to be allowed to elapse, the final notifications have had to be delayed in the case of these forests, as well as for those which were in a less advanced state.

Reserves for which only final notification remained to be issued.

4. In the Tharrawaddy division the necessary formalities were gone through with regard to the Tayôkmaw and Inma reserve of 38·4 square miles, and at the close of the year, the period for appeal having elapsed, nothing remained to be done beyond the issue of the final notification declaring it to be a reserved forest.

Reserves disposed of by the Settlement Officer but subject to revision on appeal.

5. The small cutch reserves in the Thayetmyo district of the Prome division containing some 6,600 acres, the settlement of which was last year considered unsatisfactory, have been dealt with by Mr. Thirkell White, Assistant Commissioner and Forest Settlement Officer, assisted by the Divisional Officer, and now only await the result of any appeal which may be made against the orders passed. The Paunglin reserve in the Rangoon division, with an estimated area of 124 square miles, and which had been carefully reported on by Captain Raikes, Assistant Commissioner, and Mr. Carter, Deputy Conservator, was preliminarily notified under the Act, and the Assistant Commissioner of Pegu appointed Settlement Officer in October 1882, but I regret to say was not finally disposed of by the end of the year. The delay with regard to this reserve was caused by the disturbed state of the district, which rendered it impossible for the Assistant Commissioner to take up the work till the end of the season. In the Toungoo division, areas suitable for reserves, amounting to 246 square miles, and situated in the Swa, Lônyan, Sabyin, Myohla, Binbyè, and Kunaung forests, after being preliminarily notified, were visited and all claims disposed of by Mr. W. C. Midwinter, Assistant Commissioner and Forest Settlement Officer, assisted by Mr. F. W. Thellusson. The work was completed at the end of March, but, owing to Mr. Midwinter's services being urgently required in Papun, the submission of the proceedings and maps to the appellate officer was somewhat delayed, and the final settlement of these reserves must still occupy some months. In the Shwegyin division the proposed reserve mentioned in last year's report as the Wabalat kwin forest (now known as the "Kyundaung proposed extension") was visited and reported on by the Deputy Commissioner of the district, but owing to the omission to publish the preliminary notification, the proceedings are unfortunately incomplete and the enquiry must as a matter of form be made over again.

Further proposals for reservation of State reserves.

6. The importance of maintaining a continued supply of cutch trees for the support of an industry that gives occupation, not only to a large number of Burmans residing within British territory, but also to immigrants from Upper Burma,

has often been remarked upon, and the Government of India have specially pointed out the urgency of assuring the reproduction of cutch by natural or artificial means. Throughout the cutch-producing parts of the Thayetmyo and Prome districts the powers of natural reproduction of the tree, both from seed and from stool, are so great that the majority of the sites of the toungya clearings are thoroughly well stocked with a young growth of cutch: this young forest however is not allowed to attain an age of more than 10 to 15 years before it is cleared by the toungya-cultivator, whose rotation in many instances even falls short of this limit. For the production of cutch trees of sufficient quantity and of an age suitable for the manufacture of cutch, all that is required is the reservation of a sufficient area of these old toungya-grounds, and with this object the Divisional Officer has been engaged in the selection of numerous small areas in which it is proposed to allow considerable rights to grazing, bamboos, firewood, &c. to the villages, which, in these comparatively thickly-populated districts, must of necessity be in close proximity to any reserves which may be constituted. In the Toungoo district a particularly valuable teak-producing tract, of an estimated area of 20 square miles, has been selected in a readily accessible part of the Pabè and Chaungmangè valleys. Proposals are being made for the reservation of a small area to include the old Kanni plantations, which at present are unprotected. To carry out the views expressed by Mr. Ribbentrop in paragraph 7 of last year's annual report the preliminary selection of suitable areas along the line of the Rangoon and Sittang Valley Railway has received attention in both the Toungoo and Shwegyin divisions, but the reports of the officers engaged in the work have not been received and no definite proposals have yet been shaped.

Steps taken to demarcate village forests.

7. With a view to check the destruction of the forests situated in the delta of the Rangoon river and to guarantee a constant supply of fuel to the large villages situated in the rich plains between Rangoon and the seacoast, steps have been taken to demarcate such tracts as remain under forest and of sufficient extent, and to declare them village forests to be set apart for the benefit of certain defined village communities. It was considered necessary first to notify these areas under section 6, as is done for reserved forests, in order that a thorough enquiry might be made into all claims regarding them, the intention on final settlement being to declare them village forests under Chapter III of the Burma Forest Act and subject to such rules as might be made. Mr. Thellusson, Assistant Conservator, was employed with Mr. Mitchell, Assistant Commissioner and Forest Settlement Officer, on this work from the 23rd September 1882 to the 27th December 1882, and proposals were submitted for the taking up of two tracts, known as the Twante Kôndan and the Thawunta kwin, containing some 74 square miles. From the 22nd March Mr. Pickard, Assistant Conservator, was deputed to assist Mr. Mitchell in the settlement of other tracts lying along the seacoast in the Syriam sub-division, and this work was still in hand at the close of the year.

2.—Boundaries.

Demarcation of reserves.

8. Final demarcation of reserves was carried on in the Prome, Rangoon and Toungoo divisions. In the Prome division the work was completed throughout the outer boundaries, but the limits of the recently-settled Karen areas within the Nawin reserves had still to be permanently marked. In the Rangoon division the demarcation of the Karen area of the Ôkkan reserve and the southern portion of the Hlaing Yoma reserve was completed. The demarcation of the South Zamayi reserves was in hand and the North Zamayi reserve has still to be demarcated. This work was greatly retarded by a man-eating tiger dispersing the Karen coolies in March. The Karen oracle had to be consulted, and this only sanctioned a further supply of labour on the 28th April. The permanent demarcation of the Kabaung reserve of the Toungoo division, including the Karen areas, was completed at a cost of Rs. 2,895, as also of the Saing and Kyaukmasin reserves at a proportionate cost.

Inspection and repairs of boundary marks.

9. The boundaries of reserves were generally inspected throughout the circle and repairs were effected at a trifling cost in the Tharrawaddy division. In Prome and Rangoon final demarcation occupied all the available staff, and the renewal and repair of old marks had to be left over.

Expenditure on demarcation.

10. The following table shows how the total expenditure under this head was incurred division by division :—

Division.	Preliminary.	Final.	Frontier line.
Agency.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Village demarcation	82 0 0	...	...
Rangoon	1,970 0 0	146 0 0	...
Tharrawaddy	...	960 0 0	...
Prome	...	457 0 0	...
Toungoo	1,470 0 0	3,088 0 0	78 0 0
Arrear charges.			
Adjusted by the Comptroller-General...	...	420 0 0	...
Total ...	3,522 0 0	5,071 0 0	78 0 0
Grand total ...		8,671	

CHAPTER II.

Surveys, Working Plans, and Plans of Operations.

1.—Surveys.

Survey operations in 1881-82 not recorded in last year's annual report.

11. No mention was made of surveys because at the time of submission of last year's report it was not known what area of forest reserves had been gone over by the survey parties working in the Hanthawaddy and Tharrawaddy districts. The survey of 42 square miles was completed on the scale of 4 inches = 1 mile and 25 square miles of advance work done in the Thônzè reserve of the Tharrawaddy division. In the Hanthawaddy district the Hmawbi and Kyetpyugan reserves were surveyed and mapped on the 16-inch scale, and 42 square miles of reserves were prepared for survey. From a memorandum by Mr. H. B. Talbot, Deputy Superintendent, the cost, exclusive, I am told, of supervision, of the survey in Tharrawaddy, was Rs. 21,276, or Rs. 2,500 for the 25 miles of advance work, and Rs. 18,776, or Rs. 447 per mile, for the 42 square miles completed. In the Hanthawaddy district the Forest Department share of the cost of surveys was Rs. 3,211.

Forest survey operations in 1882-83.

12. During the year under review the survey of forest reserves was taken over by a topographical party consisting of—

1 Deputy Superintendent in charge.
1 Officiating Deputy Superintendent in charge.
3 Assistant Surveyors.
2 Computers.
1 English Writer.
1 Hospital Assistant.
364 Khalassies.

Operations were confined to the Tharrawaddy division and the work taken up where it had been left by the party in 1881-82. Mr. H. Horst, Deputy Superintendent, was in charge, and he has been kind enough to supply the following

detailed account of the season's work, as well as an estimate of the cost in future years, which I give in full :—

"Field operations were not fairly started till the 20th January and terminated on the 12th May, or extended a little over 3½ months.

"The area surveyed in detail was 49 square miles and that traversed 125 square miles, but of this 17 square miles have been absorbed in the detail survey, leaving 108 square miles for next field season's operations.

"The party suffered very much from dysentery and malarious fever, partial and in some cases total blindness, a most malignant form of itch, ulcers, and scurvy. Sickness was the most serious obstacle we had to contend against. Out of a mean strength of 364 khalassies 26 died, a large number had to be invalided, and fully 40 per cent. of the menial establishment were prostrated, *i.e.*, at no period of the field season were there more than 200 effective men. Mr. Barrett, Officiating Deputy Superintendent in charge of the traverse camp, suffered much from fever; Mr. Wilson, the senior assistant surveyor, was so ill that he had to place himself under medical treatment for a whole month at Tharrawaddy; the Native surveyors suffered more or less; and the hospital assistant was unable to leave his bed for six weeks or two months, during which period the greatest number of deaths occurred.

"Food of every description had to be sent up on elephants from Thônzè and Letpadan, a distance of not less than 25 miles, by the principal paths, which once they enter the reserves run chiefly in the beds of the streams, in which there is a large body of water in the early part of the season, drying up gradually and leaving large pools 4 and 5 feet deep, in which are large slippery flags on which no pony or mule could retain a footing. When it is considered that 400 men had to be provided with the commonest necessaries of life, not a particle being obtainable on the spot, some idea can be formed of the heavy responsibility which the arrangements alone imposed, since the slightest hitch would have been disastrous.

"The operations of the detail surveyors were carried on principally in the Thônzè reserve, a portion of which has been surveyed, and the whole traversed up to the Yoma or eastern boundary of the Tharrawaddy district. Part of the Môkka-Bilin reserve has also been traversed. It is too early to describe the tract topographically surveyed as a map has not been compiled yet from the field sections, which consist of 21 pieces.

"The features are of an intricate nature, consisting of a few high ridges, the interlying valleys being cut up by innumerable watercourses, which are generally so deep, wide, and thickly wooded that it is a most difficult matter for the surveyor to distinguish between the large and small ones, and therefore he has generally to follow up the courses of all in order that important features may not be omitted. The forest is extremely dense, almost impenetrable; every ray either for the traverser or plane-tabler has to be cleared more or less, so that the work progresses literally by inches. The only clearances are those made by the Karens, which are few and far apart. With these exceptions, the country is a wilderness with nothing to relieve the eye. After a time the silence and monotony become so painful that the longing for a change is beyond all description. The Burman cannot endure this, and it is only the European or the Hindustani who has sufficient perseverance to plod his weary way. For three months a fog, quite as dense as any experienced in England, out of London, overhangs this desolate region. It lifts at about 10 A.M., up to which hour there is a constant drip, drip, from the trees, and the undergrowth is reeking with moisture, which soon causes fever and dysentery, which none but people of the strongest constitution escape. Poorbiahs, or people from Oudh (a class from whom the majority of the survey parties in India obtain their khalassies), are almost useless as they soon fall ill and seldom rally. The bulk of our menial establishment consisted of such men. There were 70 Bhooiahs, an aboriginal race from Hazaribagh, who proved really useful; but for them, there would have been a far smaller outturn and work would have been at a standstill. Experience has proved that the Bhooiah, or Cole, can alone be depended on, and arrangements will be made another season to engage them extensively. As their staple food from infancy is rice and dhâl and they are accustomed to live in jungles, their constitutions are almost proof against the effect of malaria. Cooringees were tried but did not suit for two very good reasons,—firstly, they demanded higher wages than we could afford to pay them, and, secondly, they wanted to serve in gangs under a mate of their own, who demanded Rs. 25 a month. The first attempt to divide them resulted in their deserting to a man.

"For carriage we must depend entirely upon elephants, and the supply must of necessity come from the Commissariat Department. For the party to purchase its own animals would add Rs. 30 to the cost per square mile, as 10 elephants are the least we could manage with. The Transport Officer has made a sort of a promise to supply mules another season; but there must be at least six elephants to supplement them, otherwise the provision depôts could not be maintained with any degree of certainty. In the way of local carriage there is absolutely nothing.

"I can draw no comparison between the outturn of a party working in India to a similar one in Burma, nor can the rate per square mile be compared. In India it is usual

to take the field on the 1st November, very often earlier, and close after the 1st May: thus the field season extends over 6 or 6½ months as compared to 5 or 5½ in Burma. The menial establishment is three times more expensive, and about Rs. 4,000 have to be spent in bringing the men from India and sending them back at the termination of the field season. From the experience we have gained during the past few months, I can however venture to give approximately a fair average for next field season.

"Assuming that a topographical survey on the scale of 1 mile=1 inch costs Rs. 75 per square mile, that scale being the one usually adopted for ordinary topographical purposes—

(*a*) a 4-inch scale survey as carried on this year would cost about Rs. 450 per square mile, and the amount debitable to the Forest Department would be about Rs. 360 to Rs. 375 per square mile;

(*b*) a survey on the scale of 2 inch = 1 mile would cost about Rs. 200 per square mile, and the amount debitable to the Forest Department would be about Rs. 125 per square mile;

(*c*) a *modified* 4-inch scale survey would cost about Rs. 210 per square mile, and the amount debitable to the Forest Department would be about Rs. 135 per square mile.

"A modified 4-inch scale survey is one that would suit the requirements of the Forest Department. It would be required to show the following features correctly: the main watercourses, the main ridges, the boundaries between the different classes of reserves, slopes above 30 degrees where they can be obtained along the routes taken up by the detail surveyor, well-defined dragging-paths and foot-paths, and Karen areas and plantations. The rest of the details would be approximate, the minor watercourses being shown by dotted lines and the spurs, slopes, &c., in a different colour (in the field sections) to that used for the portions accurately surveyed.

"The above estimate is based on the supposition that the health of the party is fairly good and that each surveyor, whether employed on detail or traverse work, is able to work for 22 days at the least in each month of the field season."

Mr. Hörst further estimates that the outturn with a party of the same strength would be according as (*a*), (*b*), or (*c*) is adopted, 140, 360, and 300 square miles per annum. The reserves in the Pegu circle aggregate 2,436 square miles. It is clear, therefore, that if the survey of them is to be completed within a reasonable time, we must be contented with something less than the excellent maps that are being turned out at present and which are estimated to admit of a yearly outturn of only 140 square miles.

2.—*Working plans.*

Preparation of working plan for Môkka-Bilin reserve.

13. The Working Plans division was established on the 25th November 1882 and placed under Mr. Oliver, Deputy Conservator, who was assisted by Mr. Reed, Assistant Conservator, from the 22nd December to the end of March. Operations were commenced in the old Môkka-Bilin reserve and extended over the fire-traced area, or about 24 square miles. It was contemplated that the survey party would have so far advanced by the close of the year that maps of this area would have been available for the drawing up of a working plan. As reported elsewhere, however, plane-tabling was only completed over 49 square miles, and consequently a considerable area of the Thônzè reserve has still to be done. Advance traverses have already been run in the Môkka-Bilin, and it is hoped the Superintendent will be able to detach some plane-tablers to take up this reserve from the commencement of next field season.

Valuation surveys.

14. The entire area was to have been valued by the careful counting of all trees and the result used as a standard for the valuation of other similarly constituted forests, but this was found impracticable owing to the unreliability of the men employed as enumerators; should even trustworthy men be found to enumerate, I am of opinion that the difficult configuration of the ground and the almost impenetrability of portions of the forests are sufficient to so retard the work as to make it inordinately expensive. In order to expedite the work a system of linear surveys was substituted, and in this way 578 acres, or 4 per cent. of the total area, were correctly surveyed and valued. Although this is a very small percentage, it seems sufficient considering the very poor average of teak trees to the acre contained

in our natural forests. In the North Bilin block, including unsound trees and seedlings, only 15 teak (of which nine are below 1 foot in diameter) are found to the acre, and the South Môkka block contains on an average 17, of which 11 are below 1 foot in diameter. The average number of trees of all kinds per acre is 33 to 35, bamboos for the most part completing the forest.

Rate of growth of teak.

15. A full account is given by Mr. Oliver of the measurements, countings of rings, and borings to ascertain the rate of growth of teak, and will be found in Appendix A. The conclusion to be drawn is, that in these forests, under present conditions, an unsuppressed teak tree attains 6 feet in girth in 105 to 110 years as it grows in a moist or dry situation. The countings of stumps, the trees of which had suffered periods of suppression, gave no results of value. The expenditure of the Working Plans division, including salaries of gazetted officers up to the 31st May, the close of the field season, was Rs. 10,428.

3.—Plans of operations.

Annual plans of operations.

16. Annual plans of operations will in future be submitted by Divisional Officers with the budget estimates. So far a general plan of operations for the whole circle has been worked up to. The area to be planted yearly with teak on the taungya system was fixed at 1,000 to 1,200 acres, and in endeavouring to bring the teak taungya-cultivation up to this figure, it has been found necessary to modify and extend the area protected from fire. The number of trees girdled has been limited in accordance with an estimate of the marketable teak trees standing outside reserves. We have still supplies for the girdlings of 1883-84 and 1884-85 outside reserves, estimated by Mr. Ribbentrop last year at 26,000 to 30,000 trees.* The outturn of our forests dependant on casualties amongst elephants and water in the floating streams can only be estimated for the entire circle and will always be liable to differ considerably from any plans of operations for divisions.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

1.—Establishment.

Cost of permanent and temporary establishments.

17. The permanent forest and depôt establishment actually cost Rs. 43,924, which is Rs. 6,332 less than the sanctioned maximum. The cost of the temporary establishment amounted in all to Rs. 16,189, which is exclusive of Rs. 5,651, cost of keep of elephants, charged to A VI.b. The following table shows division by division the sanctioned permanent and temporary establishments as well as the actual cost of each :—

Forest and depôt.	Sanctioned permanent.	Sanctioned temporary.	Actual cost of permanent.	Actual cost of temporary.	Remarks.
	Rs.	Rs.	Rs.	Rs.	
Agency	11,160	8,832	11,063	4,327	This includes pay of 4 forest apprentices at Dehra Dun and Rs. 282 adjustments.
Rangoon	7,296	3,480	6,024	3,169	
Tharrawaddy ...	11,582	4,188	10,236	2,415	
Toungoo	6,108	4,516	4,687	1,756	
Shwegyin	3,504	1,602	3,161	748	
Prome	6,552	1,668	5,045	1,498	
Western	4,104	1,484	3,708	1,460	
Arakan	...	816	...	816	
Total ...	50,256	26,586	43,924	16,189	

2.—General protection and breaches of the forest law.

Breaches of forest law in the circle.

18. During the year there were in all 46 cases, involving 88 persons, as against 43 prosecutions in the previous year. Convictions were obtained in thirty-seven instances and 74 delinquents were punished. The following details show the offences committed in the different divisions :—

Prome division.

19. In the Prome division, within reserves, there were five cases of illegal felling, implicating seven persons, of whom four were convicted, two discharged, and one acquitted. Two cases were instituted against eight men for ya-cutting within reserves. In one case six men were convicted and in the other two men were discharged. Breaches of forest rules in unreserved forests were confined to the boiling of cutch without licenses : there were 11 prosecutions, which resulted in the conviction of 10 men and the acquittal of five men. Two foresters were prosecuted for fraud in connection with cutch revenue and both convicted, but one was afterwards released on appeal.

Tharrawaddy division.

20. In the Tharrawaddy division five prosecutions were instituted and convictions were obtained in each case and the defendants, 10 in number, were all punished. In unreserved forests four breaches of the rules were detected and the delinquents, 10 in number, were prosecuted and all except one punished. Minor offences were compounded by the Divisional Officer in ten instances, involving 27 individuals.

Rangoon division.

21. There were only three prosecutions in the Rangoon division: in two cases convictions were obtained and in the third two men were acquitted. The illicit felling of kanyin was compounded in one instance.

Toungoo division.

22. A prosecution under section 407 of the Indian Penal Code was instituted, —against a floating contractor at Toungoo for misappropriation of his advance and theft of ropes, &c. from the rafts in his charge, and he was sentenced to six months' imprisonment : this however is scarcely a prosecution for a breach of the forest rules, though it has been included in form 52.

Shwaygin division.

23. In the Shwegyin division there was only one case, and the two men implicated, one a forester and the other a Public Works foreman, were each sentenced to 15 months' rigorous imprisonment.

Western division.

24. There were two cases of breaches of the forest rules prosecuted in the Western division. A forest guard was sentenced to six months' imprisonment and a fine for collecting and appropriating revenue, and a Eurasian earned a sentence of 15 months imprisonment by passing himself off as a forest officer and levying duty ; minor cases were compounded, but the Divisional Officer has failed to report in how many instances.

3.—Forest fires.

General.

25. Although only 15 fires occurred within the fire-traced area as against 13 last year, several of them in the Tharrawaddy division passed over considerable areas. A fire in the Nyanlè reserve burnt over 1,300 acres of the reserve, without however damaging any plantations. In the Môkka-Bilin reserve no less than four fires broke out and 6,600 acres, including 45 acres of plantations, were traversed by fire. In addition to the large areas in these two reserves, failures have to be recorded over 459 acres ; they comprise—67 acres, partly badly-stocked taungyas, of the Chaungzauk reserve of the Prome division ; 379 acres, including 110 acres of plantations, in the Bwet, Gwedauksan, Kangyi, Myaungminhla, and Minhlamôkka reserves of the Tharrawaddy division ; and 13 acres, inclusive of six acres of plantation, in the Pyunchaung and East Swa reserves of the Toungoo division.

Successful protection of Magayi and Kyetpyugan plantations.

26. The Magayi and Kyetpyugan plantations were successfully protected.

27. The area attempted was 73,332 acres as against 55,862 in the previous year. The increase is due to the addition of the East Swa reserve of 17,280 acres to the fire-traced area and 200 acres added in the Chaungzauk reserve. These additions were necessary in order to provide land within fire-traces for teak taungya-cultivation.

Area attempted increased by addition to the fire-traced area of the East Swa reserve and 200 acres in the Chaungzauk reserve.

28. Of the total area of 73,332 acres attempted, 64,973 acres were protected at a total cost of Rs. 10,697, or 2 annas 4 pies per acre attempted and 2 annas 7 pies per acre protected. The cost in the different divisions was—

Cost of fire protection.

	Cost per acre attempted.	Cost per acre actually protected.
	Rs. A. P.	Rs. A. P.
Prome	0 8 5	0 3 6
Tharrawaddy	0 2 8	0 2 10
Rangoon	0 9 7	0 9 7
Toungoo	0 1 8	0 1 8

29. Although fires passed over 8,359 acres, or 11 per cent. of the area attempted, only 228 acres of plantations and a portion of the tracts planted under flowered bamboos were fortunately included in that area.

Failures included only a small area of plantations.

30. Of the 15 fires no less than six originated at a distance from the outer trace, well within the protected area. The one in the Pyunchaung reserve may have been caused by travellers, as a path passes close to where the fire broke out, but the remaining fires were undoubtedly lighted maliciously or with the view of driving game. In five instances fire spread from the new 'yas' which were being fired. The usual precautions were taken, but it is impossible to prevent such accidents in the event of a sudden storm springing up, or high winds setting in. One of the fires in the Môkka Bilin and the one in the Nyanlè reserve resulted from sudden storms. The fires in the Môkka Bilin reserve are accounted for by the presence of surveyors and their encampments, for the time being a necessary source of danger to our fire-traced areas. The cause of the fire in the Chaungzauk reserve is unexplained.

Causes of fires.

31. With the gradual enforcement of the provisions of the Act and rules, forest fires should be of much less general occurrence; but until these are more thoroughly known to the people, it has been deemed advisable to take no steps beyond explaining the prohibitions.

Probable effect of new rules in diminishing number of forest fires.

4.—Grazing and fencing.

32. Very many of the reserves have been burdened with grazing rights in favour of the neighbouring villages, and generally there is no demand for pasture from outsiders. In the fuel reserves, however, along the line of railway, where no grazing rights exist, cattle and buffaloes have been admitted on payment of 8 annas per each full grown animal and 4 annas for each calf. The revenue from this source was—

Grazing.

	Rs.
Tharrawaddy	127
Rangoon	33
Prome*	12
Total ...	172

33. Beyond the fencing of the forest garden at Tharrawaddy and the erection of a temporary bamboo fence along part of the southern boundary of the Pyunchaung reserve to

Fencing.

* The small sum collected in Prome was levied on account of grazing of cattle employed in dragging cutch logs.

protect it from the trespass of Shan pack-cattle, nothing has been done under this head.

5 & 6.—Natural and artificial reproduction.

Reason for not separating natural from artificial reproduction.

34. The cost of assistance rendered to natural reproduction by dibbling in seed, pricking out young plants, girdling useless trees, burning dead bamboo patches, and other means, has always been charged under the head of plantations, and consequently it is inconvenient to separate natural from artificial reproduction.

Remarks on planting up of areas in which bamboos have flowered.

35. With regard to the planting up of areas over which the bamboo has flowered, I would point out that the clearing and burning of such tracts cannot be done until several years after the flowering has taken place. It may be useful to burn the forest the first year with no other object than to destroy as much of the bamboo seed as possible, but before the ground can be sufficiently cleared for planting several years must elapse. The Toungoo Divisional Officer tried to burn portions of the Saing and Yene reserves where the tinwa (*Cephalostachyum pergracile*) had flowered in 1881, but was not successful; and Mr. Oliver now tells me that the areas mentioned in last year's report as having been burnt and planted up with such good results were actually prepared by a much less recent flowering of the bamboo than was at the time supposed.

Teak-cultivation by regular plantations.

36. The only additions to regular plantations were made in the Rangoon and Toungoo divisions, where 16 acres were added to the Magayi plantation at a cost of Rs. 206 and 5 acres to the Pyunchaung plantations at a cost of Rs. 732. The latter small area was planted with the specific object of teaching the Karens, in order that they might be induced to undertake teak taungyas, and consequently the excessive cost of the work, though charged to the plantations, represents in reality money spent on the introduction of the taungya system into the Toungoo division, where so far it has been found impossible to overcome the prejudices of the Karens. The difficulty in this direction in the valley of the Kabaung has its origin in a few taungyas which were made some seven or eight years ago at the instance of the Divisional Officers and were never paid for as they were made in forest outside a fire-traced reserve. With a people like the Karens, when their suspicions are once aroused it is a work of no little time and difficulty to establish confidence. The system of adding to the Magayi plantation by means of Shan settlers is good and cheap and would be all that could be desired, if only a sufficient number of men could be got every year to plant up at least 100 acres: this is not found practicable, and the Divisional Officer recommends a return to the system of regular plantation by direct Government agency. Mr. Nisbet is sanguine enough to estimate the cost as low as Rs. 30 per acre, but this rate could only be approached if the plantations were made in some place where labour could be obtained for broken periods and got rid of when no longer required.

Cultivation of teak taungyas.

37. The total area planted with teak on the taungya system amounted to 570 acres, the average number of plants per acre was 608, and the average cost Rs. 9-14-6. Compared with last year's operations this shows a falling-off in area of 65 acres, while the cost is Rs. 3 an acre more than last year. In the Chaungzauk reserve of the Prome division the area cultivated with teak was 98 acres, almost the same as last year and equally well stocked, with an average of 673 plants per acre. The average cost, including taxes, was Rs. 7-4-1, or much the same as in the previous year. There was a falling-off of 91 acres in the Tharrawaddy division in the area planted; but the number of plants per acre was 625 as against 591 in the previous year, and the average cost increased from Rs. 6-11-2 to Rs. 10. This increased cost, though partially due to a better average number of plants per acre, was mainly due to a new arrangement by which the planters paid their own taxes and were supplied with seed by the Department. This was deemed advisable because when

the men were left to collect their own seed, their collections were rather insufficient than in excess; and in cases where the quality of the seed proved indifferent, none was available for the filling up of blanks. The decrease in area in the Tharrawaddy division was due to two causes,—firstly, the early rains prevented the men from clearing as large areas as usual; and, secondly, a number of cultivators in the Northern sub-division, probably in view of the approaching revenue settlement, took grants for garden land outside the reserves and were occupied in bringing them under cultivation. In the Rangoon division a commencement was made in the South Zamayi reserve and 30 acres were planted with the indifferent result of 116 plants per acre and at a total cost of Rs. 76. The men take an interest in the work and with the experience gained no doubt will succeed better next season. Arrangements were made with two other 'tès,' and 'yas' have been cut for the next year's sowings. In Toungoo no toungyas were planted during the year under review, but men have been found to make a beginning in the Bòndaung, Yene, Kabaung, and East Swa reserves, and 74 acres have been cleared for next year's plantations.

Cultivation of cutch in taungyas.

38. In the Chaungzouk reserve 38 acres of taungya were planted with cutch at a cost of Rs. 350, or Rs. 9-3-4 per acre. The area is well stocked. This cultivation of pure cutch to the exclusion of teak inside a reserve and on land which naturally produces a forest with a fairly equal admixture of teak is scarcely satisfactory, and next year all 'yas' in the Chaungzauk reserve will be planted with teak and cutch with two rows of the former to one of the latter. An effort made to plant cutch taungyas in the Tharrawaddy division was unsuccessful, but clearings have since been made for the coming season.

Departmental planting of teak in dead bamboo forests.

39. In continuation of the successful operations recorded in last year's annual report, areas estimated to amount to 150 acres were planted in the Bwet reserve at a cost of Rs. 1,013 and 250 acres in the Nyanlè reserve at a cost of Rs 2,132: these areas are well stocked, particularly where the planting out was done yearly in the rains. Teak was planted over an area of 8 acres cleared in the Môkka Bilin reserve with the view of experimenting as to whether a profit could not be made by the sale of potash made from the ashes of the bamboo and the cost of plantation thus reduced. The potash proved unsaleable, but the area cleared is thoroughly well stocked.

Departmental sowing of cutch in dead bamboo forests.

40. Sowings of cutch were made in the Gwedaukkwin and Kyaukkyidaung reserves at a cost of Rs. 114 and Rs. 725 respectively. The operation was a failure in the Gwedaukkwin reserve owing to the leaf canopy being too complete. In the Kyaukkyidaung reserve the area, amounting to 150 acres, was at the beginning stocked with thriving young cutch trees; and here and there groups of self-sown young teak trees established themselves. Later in the season the young cutch suffered considerably from the attacks of an insect (probably the mole-cricket, *Gryllus gryllotalpa*, though the ranger put it down to the "pway," a sort of bamboo-rat). The plants were eaten off under ground immediately below the surface. The cutch planted at Yebawzankwin in the Bwet reserve has succeeded very well and the area is completely stocked.

7.—*Cutting of creepers, weeding and thinning.*

Creeper-cutting done by all working parties.

41. The cutting of creepers, beyond comprising a considerable portion of the work of weeding, has not been carried out with any system. Girdling, valuation survey, and other working parties cut all creepers that are met with in the course of their work.

Weeding.

42. Previous taungya plantations of the Prome and Tharrawaddy divisions, aggregating 1,067 acres, were weeded at a cost of Rs. 2,314, or Rs. 2-2-8 per acre. In the Rangoon division 1,504 acres of the Magayi plantation were weeded at an average cost of Rs. 2-4-0 per acre. The planted-up areas of the Bwet and Nyanlè reserves were twice weeded and many valueless dominant trees girdled at a cost of Rs. 1,360,

or a little more than Rs. 3 per acre. In the Kangyi reserve Rs. 219 were expended in the freeing of young teak plants, the outcome of old dibblings, and in girdling trees with heavy cover.

Thinnings.

43. Thinnings were limited to the Prome and Pyunchaung plantations and carried out only to a small extent. Those in the Prome plantation cost Rs. 56; and Rs. 86 were expended on this work at Pyunchaung. In plantations such as the Pyunchaung and most of our older toungya plantations where the trees of the future have already singled themselves out, and the poles yielded by the suppressed saplings are unsaleable, a thinning is an unprofitable operation and of very limited utility.

8.—*Experiments and exotic trees.*

(*a*) *Experiments.*

Experiments with indigenous fibre plants.

44. The experimental plantation of shaw (*sterculia*) in the Bawbin reserve has not been added to. In the Pyunchaung reserve 565 shaw seedlings were put out and some 400 were alive at the close of the year. A number of letpan (*Bombax malabaricum*) cuttings were put out, but only a few struck and then died. The cost was Rs. 20.

Planting of evergreens in fire-traces.

45. The planting out of evergreens was not continued during the rains of 1882, and previous plantations would seem to have been somewhat neglected. From the Rangoon division it is reported that a number of plants were destroyed partly by inundation and partly by cattle. In the Pyunchaung reserve of the Toungoo division the plants of former years were cleared at a cost of Rs. 112, but a very large number have died from inundation or insufficient clearing.

(*b*) *Exotics.*

Divi-divi and *Pinus Australis*

46. The only new plant introduced during the year was the divi-divi (*Cæsalpinia coriaria*). Some two acres have been planted in the Tharrawaddy forest garden, and a large number of plants are ready for putting out. Seeds of *Pinus Australis* failed to germinate.

Mulberry.

47. A further supply of mulberry cuttings was received and put out at Kadinngazin and in the forest garden. Those put out at Kadinngazin are growing vigorously but have been somewhat eaten back by buffaloes that broke into the plantation.

Mahogany.

48. The number of mahogany trees has been increased from 90 to 230, not including 12 in the Conservator's garden, Rangoon. They are disposed over the circle as follows:—

Prome division	Chaungzauk reserve	14
	Prome plantation	7
	Prome, near elephant-shed	2
Tharrawaddy	Paungdè	2
	Forest garden	19
	Kywènakaing	187
Rangoon	Magayi	48
Toungoo	Pyunchaung	1
	Total	230

The plants raised from Akyab seed are particularly healthy and vigorous and so far they have been quite free from the attacks of insects.

Pithecolobium saman.

49. Some of the *Pithecolobium* at Tharrawaddy have again flowered, but no fruits have been formed. The plants at Magayi, numbering 150, are not doing well; they should have been planted in a more open site.

Ficus elastica.

50. The plants of this species in the forest garden are growing luxuriantly. Other cuttings have been recently put out. Twenty-three plants were raised from cuttings at Magayi.

Chevanessia esculenta; ceara.

51. The number of *Chevanessia* at Magayi has been increased from 39 to 57; and 18 ceara plants are in good condition, varying from 3 feet to 16 feet in height.

52. Of the three pods set in 1882, two were broken off by a gale of wind and the third eaten by ants. Eleven of the older plants remain, and, as they have climbed to a height of some 40 feet and their flowers can no longer be reached for fertilization; they will be made into cuttings and put in the vanillery. Of those planted in 1881, 50 are alive and two flowered freely, but only one pod, of several that set, remains. In the vanillery 232 cuttings have been put out.

Vanilla.

53. The plantation of *Broussonetia papyrifera* was added to by the stocking of ¼th acre with young plants raised from cuttings of both the Japanese and Tenasserim varieties. An experiment made to test the coppicing powers of the plant was so successful that the portion coppiced can only be distinguished from the rest of the plantation by a close examination of the stools.

Broussonetia papyrifera.

54. In the Pyunchaung reserve of the Toungoo division there are now, including the 12 mentioned in last year's report, 317 coffee plants; they were watered twice daily throughout the dry season and have managed to survive, but had they been in a more shady site they would have doubtless done better.

Coffee at Pyunchaung.

55. The year's expenditure amounted to Rs. 1,851. The work done was chiefly confined to weeding and filling up blanks in the plantation. The 1871 plantation was thinned and the thinnings yielded 195lbs. of bark, which, with 312lbs. collected from trees felled to make room for six buildings was sent to England and sold: the first parcel sold at 1*s.* 2*d.* per pound, and the second, though valued at 10*d.* to 1*s.*, realised only 6½*d.* per pound as it was found to be greatly damaged. Had the bark of stems and branches and immature twigs been separated, better prices would have been obtained. Mr. Petley was supplied with 4,060 young plants, chiefly of the *Calisaya* species, which he says are doing well, and he has indented for 4,000 more plants. An experiment was made with Australian seed potatoes, but the outturn was only 134lbs., or a little more than one fold. Nothing is reported with regard to the tea, coffee, *Broussonetia*, and *Ficus elastica* mentioned in the last annual report.

Thandaung plantation.

56. Three fires occurred in the plantation and 1,770 cinchona seedlings as well as 40 coffee plants were burnt. The occurrence of these fires, though a natural result of a number of people residing there, is to be regretted, not only on account of the damage done to the cinchona plants, but as being calculated to drive away the Karens to a distance, for they carefully fire-protect their pônzos and consider themselves considerably injured if by chance fire passes through them. It is not worth while to go on planting up areas near the soldiers' barracks, or that may be required for the sanitarium and the early settlement of the site for the station is very desirable. At present money is being spent on weeding and thinning plantations that may have to be destroyed at any time to make room for buildings.

Fires at Thandaung.

57. The cost of maintenance of the garden has been Rs. 1,420; and Rs. 259 were expended on a well, which has still to be completed.

Tharrawaddy forest garden.

9.—Communications and buildings.

58. In the Tharrawaddy forest garden Rs. 706 were expended on roads and culverts. The services of the Rangoon Divisional Officer were lent to metal a district road from Palôn to Kinpadi, and during the year Rs. 2,733 from the local allotment were expended on the collection of metal. One bridge over the Magayi stream is still in course of construction, and Rs. 112 were disbursed on this account during the year. Repairs to the paths and bridges in the Rangoon timber depôt cost Rs. 238.

Roads and bridges.

59. Extensive works are about to be commenced by the Public Works Department in the Tharrawaddy division with the view of controlling the courses of the Taungnyo and Bilin rivers. That department has already been success-

Removal of obstructions and clearing of streams.

ful in rectifying the channels of the Tu and Myole streams, and while the more important works are being done by the Public Works Department, the Forest Department has only to clear away snags and remove obstructions. During the year Rs. 1,626 were expended on this work in the Tharrawaddy division, and general snag clearing was carried out by contractors at their own expense on all floating streams. The removal of timber jammed at the Thônzè and Bilin bridges cost Rs. 591, Rs. 278 were expended on the clearing of an outlet of the Gamôn stream, and a boom with other works on the Taungnyo cost Rs. 757. The outlay on other works, including bunds to confine the Taungnyo stream costing Rs. 939, and the clearing of the Bawbin stream, at a cost of Rs. 202, was borne equally by contractors and Government, but had not been adjusted at the close of the year. Snags were removed in the Sittang river at a cost of Rs. 588, exclusive of the value of 150lbs. of dynamite. Fallen trees were removed from the Saing channel for Rs. 100; and a similar sum was spent on the Yene and Magayi streams. The clearing of the Myohla stream cost Rs. 437. The deepening of creeks in the Rangoon timber depôt cost Rs. 400. The total expenditure for the year on account of removal of obstructions and clearing streams was Rs. 3,151.

Buildings.

60. Repairs to the offices and officers' quarters at Prome, Tharrawaddy, and Shwegyin and Pegu cost Rs. 1,088. New rest-houses were completed at Thèmè in the Tharrawaddy division and at Banbwebin in the Toungoo division at a cost of Rs. 430 and Rs. 481 respectively. A house was removed from Magayi to Palôn (the railway station) at a cost of Rs. 518. A court-house at Chaungmagnè in the Toungoo division was bought for Rs. 172. Five other rest-houses were under construction at the close of the year,—four in the Tharrawaddy and one in the Toungoo division. An overseer's house at Myitkyo was built for Rs. 267. The expenditure on repairs to rest-houses, overseers' houses, and depôt buildings and elephant sheds amounted in all to Rs. 2,326 :—

	Rs.
Prome	119
Tharrawaddy	406
Rangoon	236
Shwegyin	26
Rangoon timber depôt	1,539
Total ...	2,326

CHAPTER IV.

Yield and Working.

1.—*Departmental operations.*

Teak logs worked by direc agency and cost of extraction.

61. During the year 25,677 teak logs were extracted by direct Government agency. The average cost of extraction was for the different divisions—

	Rs.	A.	P.	
Prome	12	9	8	
Tharrawaddy	8	11	2	
Ditto	15	9	2	319 logs sent to depôt by rail from Ôkpo.
Rangoon	14	3	11	
Ditto	13	12	1	Refuse teak worked out on half sale-proceeds rate.
Ditto	20	6	8	Refuse, but disposed of locally.
Toungoo	9	14	5	
Shwegyin	26	6	10	Refuse on half sale-proceeds rate.
Western	15	0	0	Ditto ditto.

Compared with the previous year there was an increase in the outturn of 7,212 logs, Tharrawaddy showing an increased yield of about 3,000, Toungoo 1,350, and Rangoon 2,900 (the latter however was refuse timber for the most part). The rates paid to contractors show no marked variations from those of previous years. In Tharrawaddy there is a decrease from Rs. 9 to Rs. 8-11-2, and with the many casualties amongst elephants, contractors complain that the rates are too low. Recent girdlings outside reserves have not been productive of fine timber for the reason that they have extended to trees which in former years would not have been considered marketable, and this is why the contract rates give a lower

average. In the Toungoo division the average rate of Rs. 9-14-5 is low owing to a considerable quantity of the half sale-proceeds rate timber remaining unpaid for at the close of the year. If this were included, the average cost per log would be Rs. 15-10-0. Of the 25,677 teak logs of contractors and 534 in hand last year at Toungoo and Tharrawaddy,* 23,736 logs were despatched to the central depôt, Rangoon, 1,605 logs were disposed of locally, and 870 remained in hand in Toungoo. Exclusive of drift, 24,085 logs were received at the central depôt, Rangoon, or 349 in excess of the number despatched. This excess represents logs despatched from Shwegyin but not brought on Form 62 and a portion of the balance in transit at the end of last year.

Timber other than teak worked out by contractors.

62. Contractors worked out 2,713 logs of timber other than teak and 2,100 pyingado posts. Full details, together with cost of extraction, are given in Appendix A. Five hundred and seventeen logs and 1,982 posts were received at the central depôt, Rangoon, 712 logs at the Bassein depôt, 368 logs were in hand at Toungoo and Myitkyo, 512 at Prome, 189 at Rangoon, and 296 were sold locally. The balance of 119 logs and 118 posts was in transit or lost.

Saw-mill at Palôn loaned from the Railway.

63. In December the saw-mill at Palôn was obtained on loan from the Manager of State Railways and worked for the Department till the close of the year to supply pyingado sleepers and timber for the Rangoon tramway and for a scantling indent from the Bombay Burma Trading Corporation, Limited. The 277 logs of pyingado on hand at the end of 1881-82 were thus utilized and other 694 logs and 12 posts were extracted at a cost of Rs. 4,375-4-0, or Rs. 6-4-10 per log. The cost of the saw-mill from the 17th December to end of February amounted to Rs. 3,925, of which Rs. 59 were paid for frame-saws and Rs. 3,866 as working expenses. Rs. 14,132 were received on account of 10,500 sleepers delivered to the Rangoon Tramway Company. The statement of the financial results of the mill can only be exhibited when the whole work is completed.

Railway sleepers.

64. The following sleepers were delivered to the Railway authorities during the year :—

	No.
Toungoo division.	
Pyingado and leza	16,817
Shwegyin division.	
Teak	19,870
Pyingado	50,989
Pyinma	2,653
Taukkyan	4,851
Rangoon agency.	
Pyingado (received from Tavoy for disposal) ...	6,882
Total ...	102,062

There was a balance at the close of the year of 27,000 ready to be made over as against 9,000 at the commencement. The expenditure on account of 120,062 sleepers was—

			Rs.
Toungoo	16,817	=	20,932
Shwegyin	96,363	=	1,29,328
Agency	6,882	=	12,448
Total ...	1,20,062		1,62,708

and on payment for 102,062 sleepers Rs. 1,67,505 were received from the Railway Department.

Outstandings.

65. The outstandings by contractors amounted to Rs. 91,470 at the close of the year. Advances had to be made to contractors to buy elephants, a large number having died, particularly in Tharrawaddy. The outstandings, with two exceptions, are all either secured by elephants mortgaged to the Department or covered by work done. In the Toungoo division Rs. 891, the balance of an advance made on the security

* The number of logs here noted as despatched is in excess of the number given by divisional officer by 206, accounted for by contractors delivering a few logs in excess of the number for which they take out passes.

of an elephant which died, are irrecoverable; and in the Western division items amounting to Rs. 484 will have to be written off to profit and loss.

2.—Removal of Produce by Purchasers.

(a)—Timber.

Teak timber.

66. Owing to the introduction of the new rules, the year's results appear partly in trees and partly in tons or cubic feet. Purchasers removed from the forests 1,763 trees, 189 logs, 1,460 scantlings, and 13,453 cubic feet of teak to the value of Rs. 11,403. In the Prome division 8 tons of dead teak were sold to contractors of the Public Works Department and realized Rs. 301, 46 trees and 45½ tons of refuse teak were sold for Rs. 995, and 422 pairs of cart-wheels realized Rs. 844. In the Tharrawaddy division 1,763 teak trees were disposed of for Rs. 4,662, 11 teak logs realized Rs. 457, and 5,013 cubic feet of teak sold for Rs. 1,400, all from unreserved forests: a few teak poles were sold at Toungoo at Rs. 10 per ton and brought in Rs. 33. Thirty-nine refuse teak logs were sold in the Shwegyin division for Rs. 1,156 and a confiscated teak boat-hull brought in Rs. 55. Scantlings from the off-cuts at the mill, at Rs. 10 per ton, realized Rs. 365. There was a considerable decrease in the number of teak trees sold standing in or on the edge of permanent cultivation, due to the limiting of sales to local requirements, and the Public Works Department bought a smaller quantity of timber direct from the forests than in the previous year.

Cutch trees.

67. During the year 3,131 more of the 7,000 cutch trees bought by the Bombay Burma Trading Corporation were made over from the Prome reserves. From Tharrawaddy reserves 8,315 cutch trees were sold for Rs. 34,693. The sale of a considerable number of cutch trees from our reserves is more or less necessary in order to provide employment for the men who look to cutch-boiling as a means of livelihood. Trees of a suitable size are becoming scarce outside reserves.

Timber of other kinds.

68. The rules for the disposal of standing timber of other kinds to purchasers were entirely changed from the 1st July, and consequently the year's results are useless for comparison. During the year timber of other kinds was removed as follows:—

Division.	Kanyin.		Pyinma.		Thingan.		Kaunghmu.		Other kinds.		Small posts.	Poles.
	Logs.	Cubic feet.	Logs.	Cubic feet.	Logs.	Cubic feet.	Logs.	Cubic feet.	Logs.	Cubic feet.	Number.	Number.
Prome ...	...	...	...	...	...	...	...	...	1,095	46,941	14,470	30,910
Tharrawaddy ...	...	91,127	...	11,018	...	1,479	...	...	11,697	19,304	... .	906
Western ...	20	. .	33	...	...	...	...	...	8,932	...	3,410	7,708
Rangoon ...	346	866	...	..	...	...	44	...	27,145	17,565	470	...
Toungoo ...	...	...	219	2,225	84	575	...	...	1,907	...	1,564	750
Shwegyin ...	10	600	10	10,550	2	...	...	...	2,259	7,300	20,743	900

and the revenue under this head shows an increase of Rs. 44,291, which is due mainly to the duty levied on timber of all kinds extracted for trade purposes. Under the rules in force up to the 30th June permits were issued by Deputy Commissioners and the Forest Officer within the Prome division for 2,276 in, 4,193 ingyin and theya, and 305 pyingado, the felling fees for which amounted to Rs. 2,818; and Rs. 2,428 were obtained as tonnage duty. In the Tharrawaddy Divisional Officer's report under this head the produce removed under the old rules is not separated from that worked out under the rules that came into force on the 1st July. The following table gives the timber and bamboos removed by purchasers in that division from reserved and unreserved forest:—

	Kanyin			Pyinma			Thingan.			Unreserved logs			Unreserved poles		Bamboos		Total amount.
	Logs	Cubic feet	Amount	Logs	Cubic feet.	Amount	Logs	Cubic feet.	Amount	Logs.	Cubic feet.	Amount.	No	Amount.	No	Amount	
			Rs			Rs			Rs			Rs		Rs		Rs	Rs
Reserved forests		86	17		2,023	203		309	62	2	2,061	212	.		12,10,978	3,033	3,527
Unreserved forests	.	91,041	8,474		8,995	691		1,170	118	3,378	17,223	5,692	906	77		.	15,052
Total ..		91,127	8,491		11,018	894	.	1,479	180	3,380	19,304	5,904	906	77	12,10,978	3,033	18,579

In the Rangoon division before the 1st July Rs. 322 were collected as felling fees on 72 in and 608 pyingado trees, and the tonnage duty on 7,720 in, 209 logs, 351 cubic feet of pyingado, and 346 kanyin logs amounted to Rs. 10,035. In the Toungoo division permits were issued for 450 trees of in, pyinma, thingan, and pyingado; and Rs. 1,242 were collected as tonnage duty on timber of those kinds. In the Shwegyin division trade permits for 229 trees brought in Rs. 113; and tonnage duty amounted to Rs. 1,189. The officer in charge of the Western division gives no detail beyond that shown in form 63, from which it appears 7,162 pyingado, 1,768 in, and 609 logs of other kinds were extracted, as well as 11,113 posts and poles. Since the 1st July (exclusive of the Tharrawaddy division) licenses have been issued as follows:—

No. III, license to cut, &c., teak trees on land for which a grant has been given.—Only one license was taken out for 15 trees.

No. IV, trade license for trees of the reserved kinds.—Licenses were taken out in the Toungoo division for 14 tons of thingan and 10 tons of pyinma.

No. IVa, purchase certificate of timber liable to duty.—Eleven of these licenses were issued from the Rangoon divisional office and Rs. 450 collected on 38 logs.

No. V, prepaid licenses for reserved trees.—Under this license 16½ tons of kanyin, 46 of pyinma, and 9½ of thingan were disposed of for Rs. 544.

No. VI, trade licenses for unreserved woods.—The following table shows the number of licenses under which timber was extracted and revenue was levied:—

	Prome.		Rangoon.		Toungoo.		Shwegyin.		Western.
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs	
Dugyis and Hlwazas	356	712	2,684	5,268	358	716	1,943	2,744	45 licenses were issued for 3,596 logs and poles.
Yathits	140	140	2,453	2,453	68	68			
Small posts ...	158	16	1,491	230	...	...	2,295	102	
Poles	...	...	...	...	359	1	...	...	
Passing fees ...	...	...	...	...	...	...	...	...	
Total ...	654	868	6,578	7,951	785	785	4,238	2,846	3,596

License No. VII, prepared trade license for unreserved trees.—The following table shows the number of licenses and the amount realized:—

	Prome.		Rangoon.		Toungoo.		Shwegyin.	Western.
	No.	Rs.	No.	Rs.	No.	Rs.		
Dugyis and Hlwazas	2,634	3,951	2,700	4,053	1,121	1,661	Divisional officer not having separated VI from VII, all unreserved trees are included under VI.	201 licenses for 8,999 logs and posts.
Yathits	6,747	5,060	8,045	6,007	327	238		
Small posts ...	8,758	627	470	13	1,163	77		
Poles	21,975	55	...	...	654	2		
Total ...	40,109	9,693	11,215	10,073	3,265	1,978	.....	8,999

Revenue, amounting to Rs. 408, collected by the Deputy Commissioner of Akyab, was received and credited by the Agency division.

(*b*).—*Minor Forest Produce.*

Cutch and other procedure.

69. From cutch licenses Rs. 43,720 were obtained in the Prome division, Rs. 24,220 in the Tharrawaddy division, Rs. 150 in the Western division, and Rs. 2,020 in the Toungoo division. In addition to the cutch boiled from trees sold within reserves, there was therefore the outturn of 2,498 cauldrons from unreserved forests. Assuming Mr. Ribbentrop's estimate of last year that 2,611 cauldrons probably used 176,000 trees and yielded 3,000,000 viss of cutch to be fairly correct, during the past year 2,870,000 viss were produced and 168,000 trees boiled. The sale of bamboos from reserves brought in Rs. 4,915, exclusive of Rs. 1,078 erroneously levied in the Western division; thatch, bark, canes, &c., realized Rs. 1,198; and grazing dues amounted to Rs. 172. Rs. 2,656 were obtained from charcoal licenses and duty wrongly levied on firewood. Licenses for kanyin, in, and thitsi oils yielded Rs. 2,629.

3.—*Free Grants.*

Free grants of timber of the reserved kinds.

70. Since the 1st July 1882 free grants were given by the Conservator for 60 trees and 41½ tons of teak, 63 kanyin trees, and 54 pyinma trees, under license No. II of the new rules, in the following districts:—

District.	Description of timber.			
	Teak.		Kanyin.	Pyinma.
	Logs.	Tons.	Logs.	Logs.
Tharrawaddy	50	15	3	34
Henzada	...	...	50	10
Toungoo	10	9	...	5
Prome	...	17½	...	...
Hanthawaddy	...	...	10	5
Total ...	60	41½	63	54

No free grants were made by the Commissioners of Pegu and Tenasserim; and the Commissioner of Irrawaddy issued free grants only for 15 teak and 52 pyinma trees in the Bassein district. The free grant of trees reserved previous to the 1st July and now unreserved calls for no notice.

4.—*Summary of Yield.*

Total yield.

71. The total yield of the forests of the Pegu circle during the year was as below :—

Extracted.	Teak.			Reserved trees.			Unreserved trees.			Small timber.		Cutch.	Shaw fibre.	Bamboos.	Canes.	Charcoal.	Wood and other oils.	Honey.	Remarks.
	Logs.	Scantlings.	Tons.	Logs.	Scantlings.	Tons.	Logs.	Scantlings.	Tons.	Poles.	Posts.	Trees.	Viss.	No.	No.	Baskets.	Viss.	Viss.	
By Government Agency	25,677	19,870	25,923	2,082	2,653	1,329	3,460	72,657	3,194	..	..	..	..	400	..	..	..	..	
By Purchasers .. / Under trade permits ..	2,115	1,460	3,634	8,291	..	2,819	65,800	19,340	22,316	39,164	5,275	176,317	28,585	23,27,508	662	133,350	12,276	200	
Free permits ..	232	..	85	1,957	..	783	5,384	..	1,795	..	..	..	..	..	..	..	..	..	
Total ..	28,024	21,330	29,642	12,330	2,653	4,931	74,644	91,997	27,305	39,164	5,275	176,317	28,585	23,27,908	662	133,350	12,276	200	

5.—Drift operations.

Collection and disposal of drift timber.

72. During the year 860 logs of teak were salved on the Irrawaddy and its tributaries, 6,408 on the Sittang river, 1,110 on the Pegu river, 1,148 on the Hlaing river, and 215 on the seashore: these with the balance of 921 at the commencement of the year make a total of 10,662 logs. Of these, 7,355 were made over to claimants on payment of salvage, 1,206 were despatched from the Rangoon and Shwegyin divisions to the Rangoon depôt, 628 were sold, 2 used departmentally, and 52 went adrift. The balance at the close of the year was 1,411. Of the 1,206 despatched to the Rangoon depôt, 1,123 had arrived and 83 were still in transit. Of woods other than teak the opening balance of the year was 445, which with 1,260 logs collected during the year make a total of 1,705; they were disposed of as follows: 109 to claimants, 679 by sale, 234 despatched to Rangoon depôt, 10 used departmentally, 3 lost, and the closing balance was 678.

Cost of drift timber operations.

73. The total cost of drift timber operations was Rs. 19,530 and the revenue from this source was Rs. 45,068, leaving a surplus of 25,538 to cover the cost of supervision and to provide the legitimate income to Government derivable from unmarked timber.

Detail of drift work in divisions.

74. In the Prome division 224 logs were collected at a cost of Rs. 172, 94 were made over to claimants on payment of salvage amounting to Rs. 376, and the balance of 130 logs was sold: The Tharrawaddy division derived Rs. 555 from 33 logs called drift but probably logs of old Government contractors neaped and lost in kaing grass. In the Rangoon division 610 teak logs and 116 logs of woods of other kinds were collected. The whole of these were despatched to the Rangoon timber depôt. Above Toungoo 1,984 logs, chiefly Upper Burma timber, were collected at a cost of Rs. 2,524. Of these, 1,871 were returned to claimants on payment of Rs. 4,915 salvage, 4 were sold, and 52 went adrift, and the closing balance, including 10 from the previous year, was 67 logs. Below Toungoo, where drift timber is collected and disposed of by the Shwegyin Divisional Officer, 4,424 teak logs were collected, making with last year's balance of 813 a total of 5,237. The disposals were 4,102 to claimants, 596 despatched to the Rangoon depôt, and 2 used departmentally, leaving a balance of 537 at the close of the year. The opening balance of other woods was 320 and 529 were salved. Of these, 25 were made over to claimants, 41 were sold and used departmentally, 3 lost, and 118 despatched to Rangoon, leaving a balance of 662. The cost of collection was Rs. 4,957; and Rs. 1,737 were expended on rafting to Rangoon. The receipts from salvage dues were Rs. 6,440 and from sales Rs. 224. In the Western division there was a balance in hand of 42 drift logs; and during the year 725 pieces, including 136 in scantlings and 9 in logs were collected. Of these, 233 were claimed and 338 sold, leaving a balance of 196. Receipts under this head amounted to Rs. 6,374; and the expenditure was Rs. 2,003. The Rangoon agency collected 855 teak logs and 62 logs of other kinds. Of the teak logs, 640 were river-drift and 215 were sea-drift, the timber of other kinds being all river-drift. The cost of collecting 702 logs was Rs. 865, and 570 of these were returned to claimants on payment of Rs. 1,195 salvage. Fifty-nine logs were sold for Rs. 1,654 and the balance at the close of the year was 73 logs. Of the 215 sea-drift logs, 18 were made over to claimants on payment of Rs. 727 salvage and 134 were sold for Rs. 6,742, leaving a balance of 63 in hand.

6.—Girdling.

Girdling.

75. In all 14,984 teak trees, or 1,016 fewer than sanction was obtained for, were killed during the year. Of these, 11,294 are outside reserves and 3,690 within reserved areas. Trees of other kinds—pyinma, maniawga, &c.—were girdled to the number of 2,657. A detailed statement of the girdlings of 1882-83, also of those of the previous year (omitted from last year's report), is given in Appendix D. The operations of the year under review extended over the different divisions as follows: In the Prome division girdling was confined to the Myedè, Middle Nawin, and Maha-

thaman forests outside reserves, where a total of 2,250 teak trees were girdled at a cost of Rs. 450. The following teak trees were girdled outside reserves in the Tharrawaddy division :—

	No.
Thônze forests	215
Môkka forests	600
Minbu forests	2,854
Taung forests	1,501
Shwele forests	150
Total ...	5,820

Within the Môkka reserve 200 trees were killed. In the Rangoon division 1,342 teak trees were girdled in the Pegu unreserved forests: 500 pyinma and 500 maneeawga were girdled outside reserves in the Paunglin forests. In the Minyè forests of the Saing reserve in the Toungoo division 3,490 teak were girdled and 2,382 were killed in the Saing and Minyè forests outside reserves: 100 padauk were girdled in the Yaukthwa forests. A few kanyin trees and 500 pyinma were girdled in the Môn forests of the Shwegyin division.

7.—Disposals and sale depôts.

Rangoon timber depôt.

76. The balance of teak in hand at the Rangoon timber depôt on the 1st April 1882 was 417 I class logs, 7,775 II class teak logs, and 79 sleepers, or 7,033 tons. During the year 26,063 logs, or 26,365 tons (2,527 I class and 23,536 II class), inclusive of drift, were received; and 1,301 I class logs and 17,872 II class logs and 14 sleepers, or 18,730 tons, were disposed of. The balance at the close of the year was 1,643 I class logs, 13,439 II class logs, and 65 sleepers. The opening balance of timber of other kinds was 833 logs, or 908 tons. Eight hundred and sixty-two logs and 1,982 telegraph and 6,868 sleepers and 27 scantlings were received during the year. All the telegraph posts and sleepers and scantlings were disposed of and 1,623 logs were sold, leaving a closing balance of 72, or 63 tons.

Prices realized at the Rangoon depôt.

77. The 18,730 tons of teak disposed of realized the following average rates per ton :—

	Rs. A. P.
Mast pieces / Yard pieces	71 9 10
Dugyis, I class	78 14 6
Dugyis, II class	53 2 0
Hlwazas	61 15 8
Yathits	49 11 10

Timber of other kinds sold on an average for Rs. 22-8-10 per ton in the round.

Bassein depôt.

78. The stock of timber of other kinds at the Bassein depôt was increased by 717 logs, bringing it with last year's balance to 1710: 813 were disposed of during the year, leaving a balance of 897 in hand. The bulk of this timber is kanyin, in, and thitto (perishable woods) and will have to be disposed of even at a loss. The entire stock has cost on an average something over Rs. 10 per ton; but of the timber disposed of 25 kashit or thitka were sold at Rs. 25 per ton and 401 at Rs. 22, kyunbo has realized Rs. 17 and Rs. 18 per ton, and the pick of other kinds Rs. 12 and Rs. 13 per ton. Of the 897 logs in hand, I have issued orders to sell 550 at Rs. 9 per ton and to dispose of the balance by auction.

Local sales.

79. In the Prome division 11 teak logs were sold locally to the Public Works Department for Rs. 960. In Pegu 348 were sold at Rs. 40 per log. In the Tharrawaddy division 33 waif logs were sold for Rs. 555. In the Toungoo division—

	Rs.
645 teak logs, or 27,437 cubic feet, were sold to the R. S. V. Railway for	31,960
108 teak logs, or 3,672 cubic feet, were sold to the Public Works Department	4,137
381 teak logs, or 1,215 cubic feet, were sold to other purchasers ...	7,839
Total ...	43,936

In addition to the above teak timber a few logs of other kinds were disposed of locally, as well as the drift teak noted under drift timber operations.

CHAPTER V.

Financial Results.

Comparison with previous year.

80. The receipts and expenditure of the year as exhibited in form No. 53 were as follows :—

	Rs.
Receipts	16,26,331
Expenditure	8,38,233
Showing a surplus of ...	7,88,098

During the previous year in this circle—

The receipts amounted to	13,29,842
The expenditure amounted to	7,59,542
Leaving a balance of ...	5,70,300

The figures thus show—

Increase in gross revenue of	2,96,489
Increase in net revenue of	2,17,798

Revenue.

81. The revenue was derived from the following main sources :—

	Rs.
Timber and other produce removed from the forests by Government agency exclusive of sleepers	11,74,804
Railway sleepers	1,67,505
Consumers or purchasers of timber	1,38,795
Firewood and charcoal	2,655
Bamboos	6,004
Grazing and fodder grass	173
Other minor produce	74,612
Confiscated drift and waif woods	45,068
Miscellaneous	16,701
Total ...	16,26,331

82. *Expenditure.*

(*A*). *Conservancy and works*—

	Rs.
Removal of timber and other produce by Government agency exclusive of railway sleepers	3,54,291
Railway sleepers	1,62,702
Consumers or purchasers of timber	6,501
Management of confiscated drift and waif woods	19,530
Purchase and keep of cattle and hire	32,805
Communications and buildings	21,756
Demarcation, improvement, and extension of forests—	
Demarcation	8,671
Compensation for land and rights	76
Survey and working plans	6,073
Plantations	23,288
Protection from fire	9,903
Other works	165
Miscellaneous	14,897
Total A ...	6,60,153

(*B*) *Establishment*—

Salaries	1,41,494
Travelling allowances	24,426
Contingencies	12,160
Total B ...	1,78,080
Grand Total ...	8,38,233

Distribution of revenue and expenditure.

83. The following table shows the distribution of revenue and expenditure in the several divisions:—

Financial results.

Division.	Revenue			Expenditure.	Surplus.	Deficit.
	Locally collected.	Collected by agency.	Total.			
	Rs.	Rs.	Rs.	Rs	Rs.	Rs.
Prome	77,508	2,21,210	2,98,718	88,726	2,08,992	...
Tharrawaddy	91,856	3,64,789	4,56,645	2,12,800	2,43,845	...
Rangoon	66,848	2,29,665	2,96,508	1,37,102	1,59,406	...
Toungoo	84,954	2,40,763	3,25,717	1,90,984	1,34,733	...
Shwegyin	1,44,919	6,491	1,51,410	1,59,239	...	7,829
Western	30,505	...	30,505	27,360	3,145	...
Arakan	230	408	638	2,164	...	1,526
Agency	...	66,190	66,190	18,858	47,332	...
Total ...	4,96,815	11,29,516	16,26,331	8,38,233	7,88,098	...

Comparison of revenue.

84. Revenue I(*a*) exhibits an increase of Rs. 2,29,446 as compared with 1881-82. The number of logs of teak sold in 1882-83 is 3,040 in excess of previous year. This, combined with the high prices ruling for teak throughout the year and the sale of 3,889 of other kinds of timber also in excess of similar sales in 1881-82, will explain the increase under this head. Revenue II(*a*) shows an increase of Rs. 44,291, accounted for principally in the Tharrawaddy and Prome divisions. In the former there is an increase of Rs. 25,163 and in the latter of Rs. 11,409. The Toungoo and Shwegyin divisions show an increase of Rs. 2,102 and Rs. 4,079 respectively. The Western division also shows a small increase of Rs. 1,163. Under II(*b*) there is an increase of Rs. 1,104, chiefly in the Rangoon Western and Tharrawaddy divisions. Under (*c*) there is an increase of Rs. 2,147 contributed by the Rangoon, Tharrawaddy, and Western divisions in the proportion of Rs. 382, Rs. 688, and Rs. 1,078. The increase by sale of bamboos from reserves is steady in the Rangoon and Tharrawaddy divisions. In the Western division the revenue is abnormal and has been evidently obtained by erroneous levy of duty on bamboos. There is a small increase of Rs. 41 under (*d*), which calls for no remark; and under (*e*) there is an increase of Rs. 23,228, entirely confined to the Prome division by amount realized on sale of cutch permits. Revenue III shows a decrease of Rs. 16,428. In the Agency division there is an increase of Rs. 9,474; but there is a large falling-off in the Toungoo, Shwegyin, and Western divisions. In the Sittang river the concession to the Bombay Burma Trading Corporation, Limited, to salve their own timber has caused a considerable diminution in the receipts under this head. The Western division also exhibits a considerable falling-off, particularly in sea-drift timber. Under V, miscellaneous, there is an increase of Rs. 1,488, chiefly obtained by forest offences compounded under section 66 of Forest Act, XIX of 1881. (*b*) exhibits an increase of Rs. 322. This is explained by arrear adjustments made by the Assistant Comptroller-General and is therefore only an apparent increase. (*c*) shows an increase of Rs. 10,849 of which Rs. 6,694 represent arrears adjusted by the Comptroller-General. The actual increase therefore is Rs. 4,155 and is accounted for by fees for registration of hammer-marks under the new rules and sales of canes and bamboos at the depôt.

Expenditure.

Comparison of expenditure.

85. Expenditure AI(*a*) shows an increase of Rs. 45,904. This would have been considerably more had the timber extracted on the half-profit principle been paid for before the close of the year. These charges will now be shown in the expenditure of 1883-84. AII again shows a decrease of Rs. 1,199, showing that the revenue-stations were worked even more economically than the previous year. AIII exhibits a decrease of Rs. 2,825. This is owing to the falling-off in the operations of the Sittang river, where the Bombay Burma Trading Corporation were allowed to salve their

own timber and has thus materially affected the receipts under this head. AVI (*a*) shows a decrease of Rs. 7,250 owing to savings in the number of animals purchased for departmental use. (*b*) shows a small increase of Rs. 663, the number of animals in the last quarter of the year being larger than at the beginning, which caused a small increase in cost of keep. (*c*) exhibits a decrease of Rs. 3,836, chiefly due to savings on original estimate and cost of steam-launch. Under VII(*a*), (*b*), and (*c*), there is an increase of Rs. 536, Rs. 12,082, and Rs. 2,782 respectively. In roads and bridges there has been an increase of Rs. 224 in the Agency, Rs. 199 in the Tharrawaddy, and Rs. 129 in the Toungoo divisions, and a small saving in the Rangoon division.

Buildings.—This large increase is accounted for by the erection of a 1st class forest bungalow at Toungoo, of which Rs. 11,000 are debited to the present year: the balance will appear in the accounts for 1883-84. There has also been a slight increase under this head in the Agency and Tharrawaddy divisions. Other works are accounted for by cost of excavating two creeks at the Government depôt, Rangoon, clearing several of the floating streams in the Tharrawaddy division, and also of snags in the Toungoo division.

AVIII(*a*) shows an increase of Rs. 2,567 chiefly in the Toungoo division, where the work was concentrated during the entire dry season. In Prome also there was a small increase owing to cutch reservation within Thayetmyo. (*b*) shows a decrease of Rs. 2,196, as very small compensation was paid during the year, amounting to only Rs. 76. (*c*) shows a decrease of Rs. 2,140, but this is only nominal as the cadastral survey charges are not included; if included there would be a very large increase. (*d*) shows an increase of Rs. 8,719. The principal increase is under Tharrawaddy, which shows Rs. 6,465 in excess of previous year, Rangoon shows Rs. 1,776, and Prome Rs. 342. In Tharrawaddy there was heavy expenditure under cultural operations and in Rangoon of thinning plantations. (*e*) shows a small increase of Rs. 677, which calls for no remark. (*f*) shows a decrease of Rs. 961, which is merely nominal as charges formerly debited to this head now appear under (*d*) plantations.

AIX(*a*) shows an increase of Rs. 10,138, the bulk of which consists of arrear adjustments under this head by the Comptroller-General. (*b*) shows an increase of Rs. 302 incurred by the agency on account of fees, including expenses of an advocate to appear in an appeal case at Henzada before the Commissioner of the Irrawaddy Division. (*c*) shows a decrease of Rs. 4,183. Last year nearly Rs. 7,000 were written off to profit and loss under this head, hence the apparent decrease.

B.—Establishment.

Under BI(*a*), establishments there is an increase of Rs. 2,069 owing to revision of gazetted scale, with effect from September 1882. (*b*) shows an increase of Rs. 5,307, accounted for above. (*c*) shows an increase of Rs. 8,164, this is accounted for by the new scale being in force throughout the year, and in 1881-82 it was only in force for a few months. (*d*) shows an increase of Rs. 114 only, which calls for no remark. (*e*) shows an increase of Rs. 548, being composed of arrear adjustments by the Comptroller-General.

Under BII there is on the whole an increase of Rs. 1,050, but confined entirely to arrear adjustments of the Comptroller-General, which amounted to Rs. 1,972, so that there was really a decrease of Rs. 922 under this head.

Under BIII, contingencies (*a—f*), there is on the whole an increase of Rs. 1,640; under (*b*) of Rs. 46; under (*e*) of Rs. 172 and the difference under sundries, chiefly in the Agency and Tharrawaddy divisions.

CHAPTER VI.

GENERAL.

Steam tree-feller.

86. A Ransom's steam tree-feller was imported at a cost of Rs. 2,674. The object of this importation was to facilitate and reduce the cost of felling trees and cross-cutting billets of firewood for the Railway. The Railway find coal cheaper and better than

wood-fuel and only use wood for lighting fires. It was then proposed to use the steam feller to cross-cut pyingado logs into sleeper lengths, but this fell through because with unsound timber like pyingado, it was found better to take out planks the entire length of the logs and then cross-cut afterwards, cutting out any unsound parts. An experiment to clear a piece of land adjoining the Magayi plantations was not successful, the machine requiring constant little repairs, and the labour incurred in taking precautions against trees falling on the feller rendered the work as expensive as if done by hand.

Imports by the Irrawaddy and Sittang rivers.

87. During the year the following timber was imported by the Irrawaddy river from beyond the frontier :—

Kinds of timber.	Logs.	Squares.	Planks.	Boat pieces.	Wheel pieces.	Total.
Teak	15,687	1,625	108	81	5,220	22,616
Padauk	872	...	...	...	...	872
In	80	...	...	...	...	80
Pyingado	600	...	...	...	...	600
Other woods	132	...	...	...	...	132
Total ...	16,771	1,625	108	81	5,220	23,750

At Toungoo 27,126 teak logs were reported and passed, but in addition to these some 8,000 logs came down the Sittang without being reported at Toungoo. A statement of the Exports, amounting to 39,503 tons, is given in the Appendix C(1).

Elephants.

88. At the commencement of the year 35 elephants were attached to the depôts and different divisions of the Pegu circle, During the year six died and eight were bought, leaving a balance of 37 animals. The average monthly cost per elephant amounted to Rs. 34-5-0. The mortality amongst contractors' elephants was very great, no less than 32 animals dying in Tharrawaddy alone.

A special cutch Myoôk.

89. Maung Shwe Bwin, Myoôk, was placed on special duty from the 12th December to the end of March in the localities where the manufacture of cutch was being carried on, and to his energy are due the numerous detections of men boiling cutch without licenses. The pay and travelling allowance of the Myoôk and his establishment amounted to Rs. 1,419.

Services of officers.

90. Mr. H. C. Hill, Officiating Conservator, assumed charge of the Pegu circle from Mr. B. Ribbentrop on the 3rd January 1883. All divisions have been subjected to a change of officers in the course of the year, the officers at present in charge having taken over as follows :—

Name.	Division.	Date of assuming charge.
Mr. Popert, Deputy Conservator...	Toungoo ...	1st March 1883.
Mr. Adamson, Deputy Conservator	Western ...	12th January 1883.
Mr. Carter, Deputy Conservator	Tharrawaddy	25th November 1882.
Mr. Nisbet, Deputy Conservator	Rangoon ...	8th May 1882.
Mr. Hauxwell, Assistant Conservator	Shwegyin ...	12th June 1882.
Mr. Weston, Assistant Conservator	Prome ...	10th January 1883.

These changes, though not materially affecting the year's progress, have imposed extra work on all Divisional Officers in addition to that consequent on the coming into force of the Forest Act and the new rules. Mr. Oliver assumed

charge of the newly-constituted Working Plans division on the 25th November 1882, though he had commenced work in anticipation. Mr. Reed and Mr. Slade, Assistant Conservators, appointed by the Secretary of State, arrived on the 17th December 1882 and were posted, Mr. Reed to the Working Plans division and Mr. Slade to the Tharrawaddy division. With the exception perhaps of Mr. Hauxwell, who might display a little more energy, all officers have rendered good service and given satisfaction.

Death of Mr. Reed and health of officers.

91. It is with very much regret that I have to record the death of Mr. Reed, Assistant Conservator, from sunstroke, after a residence of only a little more than three months in the country. He was a promising young officer who took a very great interest in his work. At the close of the season Mr. Thellusson, Assistant Conservator, suffered from a severe attack of fever, and internal hæmorrage ensuing, he was so much weakened that he has since had to proceed to Europe on sick leave. The health of all other officers has been good, and the forest and subordinate establishments have on the whole enjoyed better health than usual.

Forest and depôt establishments.

92. Mr. Allmark has given entire satisfaction in carrying on the steadily increasing work of the Rangoon depôt and agency. Rangers have on the whole worked well, and Maungs Wè, Gale, and Aung in the Tharrawaddy division, and Mr. Dias in the Rangoon division, deserve special mention. Two foresters in the Prome division were prosecuted for criminal breach of trust and both convicted, but one was released on appeal. A third made good his escape to Upper Burma. One man was punished in Shwegyin for selling a drift teak log and another in the Western division was sentenced to a term of imprisonment for appropriating revenue. Good work was done by the foresters in the Tharrawaddy division.

Office establishment.

93. Mr. Buchanan, Superintendent of the Conservator's office, has worked with his usual ability and thoroughness; and the conduct of the office establishments has been satisfactory throughout the circle, with the one exception that Maung Ba Si, the head clerk of the Prome office, embezzled Rs. 488 and got away to Upper Burma.

RANGOON:
The 7th July 1883.

H. C. HILL,
Offg. Conservator of Forests, Pegu Circle.

APPENDIX A.

Detailed record of progress in the different divisions of the Pegu Circle, 1882-83.

CHAPTER I.

AREA AND BOUNDARIES.

PROME DIVISION.

Areas dealt with by Forest Settlement Officer and preliminary proposals.

No addition was made to the area of reserved forests, but the proposed cutch reserves of the Talaba (3,189 acres), Sanbòk (2,292 acres), and North and South Inle (672 and 478 acres respectively) were inspected in company with the Assistant Commissioner, Myedè, Thayetmyo district, and final orders regarding the claims and privileges of the villagers interested in these reserves were passed. The period of three months allowed for appeal against any of the orders has not however lapsed. Other cutch-producing areas have been examined and propositions for further reservation are in hand.

Demarcation of reserves.

2. The northern boundary of the Mindòn and Ngawet reserves have been demarcated with 160 boundary boards at a cost of Rs. 398-8-0, which includes cooly and boat hire and price of boards. There are 131 stone pillars round these reserves and the boundary boards run from 1 to 850. The newly-acquired three square miles of the best teak-producing country between the North Nawin and Thayetmyo East Yoma reserve has also been demarcated with three stone pillars, one mound, and 52 boundary boards at a cost of Rs. 58-6-0.

THARRAWADDY DIVISION.

Boundaries.

3. The boundaries of the reserves were inspected and necessary repairs to boundary marks executed. The cost was—

	Rs.
Kangyi	28
Chaungzauk	1
Toukkyan	17
Gamôn	119
Thakolan	14
Bawbin	11
Minhla	40
Thitcho	88
Minbu	35
Sitkwin	4

RANGOON DIVISION.

Preliminary work.

4. The cost of the preliminary settlement of the Paunglin reserve amounted *in toto* to Rs. 1,977-1-7, disbursed thus—

	Rs. A. P.	Rs.
1881-82		27
1882-83—Pay and travelling allowance of Civil Officer.	1,778 14 4	
Commissariat elephants	97 2 0	
Coolies on demarcation	99 2 9	
		1,970
Total		1,997

Compensation for rights.

5. A betel garden in the South Zamayi reserve was purchased for Rs. 40.

Permanent demarcation.

6. The final demarcation of the southern boundary of the Hlaing Yoma was completed with 97 boards at a cost of Rs. 13. The Karen area of the Okekan reserve was demarcated with 80 boards and a portion of the western boundary with 22 boards at a cost of Rs. 3. Thus the demarcation of the Hlaing Yoma and Okkan reserves, inclusive of 953 spent in 1880-81, cost Rs. 969. The permanent demarcation of the South Zamayi reserve was in hand at the close of the year and had cost Rs. 133.

TOUNGOO DIVISION.

Enquiry into complaints.

7. A complaint made by the villagers of Kayinlègyin that the area excluded from the Saing reserve was insufficient for their agricultural and other requirements was enquired into on the spot by the

District Officer and found to be untenable, ample ground having been originally thrown out to meet their wants.

Demarcation of reserves.

8. The permanent demarcation of the Kabaung reserve by means of 579 earth mounds and hardwood posts has been completed at a cost of Rs. 2,895. Additional pillars were erected round the boundaries of the Kyaukmasin and Saing reserves. Boundary boards with a running number have still to be put up round some of the reserves, and endeavours will be made to affix them during next rains.

CHAPTER II.

Working Plans.

Beginning of operations.

9. Field work was commenced on the 15th December 1882 and closed on the 9th May 1883. The forest taken in hand was the fire-traced portion of the Mokka and Bilin reserves, estimated to contain 24 square miles.

Procedure adopted.

10. The forest was first split up into two blocks,—North Bilin, about 10 square miles, and South Mokka, about 14 square miles. The former was then divided into 17 and the latter into 24 compartments, demarcated by blazed lines, stamped with a hammer mark, and numbers painted on trees at the salient angles; paths, ridges, or streams were in all cases chosen as boundary lines. In the absence of a correct map of the forest the selection of compartments was a matter of some difficulty, and, as might be expected, the result is not altogether satisfactory, the check afforded by the subsequent valuation surveys showing that considerable errors had been made in the estimation of areas and distances. As soon as the demarcation of compartments was sufficiently advanced, the valuation of the forest was commenced. It was at first intended to count all the trees in the reserve, and it was proposed to effect this by a line of guagemen and enumerators traversing each compartment backwards and forwards from end to end, the edge of the counted area being denoted by a continuous blazed line. A commencement was made in this manner in North Bilin, one of the most open and least precipitous of the compartments, with a gang of five enumerators and five gaugemen. But, owing to the very broken nature of the ground, it was found impossible to keep the men in line and they kept either doubling back on themselves or else getting widely separated; numerous dense thickets of young tinwa (*Cephalostachyum pergracile*) bamboos were also met with, in which counting was quite impossible; but the greatest difficulty of all was experienced with the enumerators themselves, who were found to be altogether untrustworthy. The attempt to count out the whole forest was therefore given up and a system of linear surveys combined with ocular valuation substituted. The surveys were of an uniform width of two chains (132 feet) and were carried in a perfectly straight line through the compartments so that an accurate section of the forest was obtained.

Want of Native surveyors.

11. Endeavours were made to obtain Burman surveyors, who had been trained in the cadastral survey, to assist in laying out the lines, but although high pay was offered and a number of men were out of work, none of them could be induced to take employment, fear of fever keeping them away. Two men actually joined the camp but deserted after doing one day's work. Eventually two of the men who had been engaged as enumerators were taught sufficient surveying to enable them to lay out and chain straight lines through the forest.

Linear surveys.

12. The aggregate length of the linear surveys was 33·2 miles equal to an area of 581·75 acres, exclusive of two sample plots of 40 and 6 acres respectively. The total area surveyed was therefore 577·75 acres, or nearly 4 per cent. of the whole area examined. The details of the surveys are shown in Appendix H. Of the area surveyed, 30 acres (Nos. 26, 27, and 28) were carried out entirely by the two trained Burmans; 398·25 acres were both surveyed and counted out either by Mr. Oliver or Mr. Reed; and on 110 acres the line clearing was partly done by the two Burmans, the surveys being checked and completed by Mr. Oliver. Owing to the density of the bamboo undergrowth, laying out straight lines proved a very slow and costly operation, and a modification of this plan will probably be necessary in future. The line-clearing was done entirely by Madrassi coolies, Burmese labour not being available.

Classification of trees.

13. In enumerating the trees in the surveyed areas, the following classification was adopted :—

I.—Sound girdled or nathat teak trees.

II.—Unsound teak trees—

(*a*) above 1 foot in diameter;
(*b*) below 1 foot in diameter.

III.—Sound teak trees—

(*a*) above 2 feet 6 inches in diameter;
(*b*) from 2 feet to 2 feet 6 inches in diameter;
(*c*) from 1 foot 6 inches to 2 feet in diameter;
(*d*) from 1 foot to 1 foot 6 inches in diameter;
(*e*) below 1 foot in diameter, dominant;
(*f*) below 1 foot in diameter, suppressed.

IV.—Trees other than teak 1 foot in diameter and above—

(*a*) pyinma;
(*b*) pyingado;
(*c*) kanyin;
(*d*) ingyin and thitya;
(*e*) in;
(*f*) all other trees.

All trees that would yield marketable timber were classified as sound, but a large proportion of them will no doubt only give II class logs. Class III*f* includes all saplings and seedlings overshadowed by bamboos or other trees. The majority of those under bamboos will eventually break through the cover, and those shaded by other trees can to a great extent be set free by improvement—fellings or girdlings. Many small seedlings have probably been overlooked, as they are very inconspicuous after the leaves have fallen. Teak saplings in plantations were not enumerated. The diameter of the trees was measured with a sliding gauge at about 4 feet 6 inches above the ground. A brief description of each compartment has been written and an estimate per 100 acres framed of the growing stock. A note has also been made of the cultural operations to be carried out in the immediate future. A complete working plan cannot of course be drawn up until the reserve has been surveyed.

Rate of growth of teak.

14. To ascertain the rate of growth of teak in this forest 225 dominant trees of different sizes were bored with Pressler's growth-gauge, all stumps met with were examined, and a few sample trees felled. The annual rings could only be counted on 43 stumps, the majority of them either being hollow or having bands of microscopic rings which could not be counted. The following tables give the result of the countings of stumps and butt ends of logs :—

A.—Moist forest with kyathaungwa or tinwa bamboo undergrowth.

Stumps.	Diameter class.	Average diameter.	Average age.
No.	Inches.	Inches.	Years.
8	1 to 12	7·25	29
4	12 to 18	16	62
18	18 to 24	23	112
17	24 to 32	27	128
Average of 37 trees ...		23	105

B.—Very dry forest on clayey soil with myinwa bamboos.

Stumps.	Diameter class.	Average diameter.	Average age.
No.	Inches.	Inches.	Years.
1	12 to 18	15	100
3	18 to 24	24	166
2	24 to 33	29	229
Average of 6 trees ...		24	176

The above figures must not be regarded as true averages for all trees in the reserve, as the slowest grown could not be counted, but they hold good for trees which have not suffered any long periods of suppression. In the trees bored the number of rings in the last inch or two of radius was ascertained, and from this the current annual diameter increase calculated. For instance, a tree 16 inches in diameter was bored on four different sides, at breast height—

the 1st	boring gave	14 rings	to the last	1·9	inch radius;
the 2nd	ditto	14	ditto	1·6	ditto;
the 3rd	ditto	14	ditto	1·8	ditto;
the 4th	ditto	14	ditto	2·1	ditto.

The average diameter growth during the last 14 years was consequently $\frac{7 \cdot 4}{2}$ inches $= 3 \cdot 7$ inches, and the current annual diameter growth $\frac{3 \cdot 7}{14} = 0 \cdot 264$ inches. The following tables exhibit the result of the borings :—

A.—In moist forest.

Trees.	Diameter class.	Current annual diameter growth.
No.	Inches.	Inches.
35	1 to 12	0·237
65	12 to 18	0·229
44	18 to 24	0·202
15	24 to 30	0·175

According to this calculation the average age of a tree—

12 inches diameter $= \frac{12}{0{\cdot}237} = 50$ years;

18 ditto $= 50 + \frac{6}{0{\cdot}229} = 76$ do.;

24 ditto $= 76 + \frac{6}{0{\cdot}202} = 105$ do.;

30 ditto $= 105 + \frac{6}{0{\cdot}175} = 139$ do.

B.—In dry forest.

Trees.	Diameter class.	Current annual diameter growth.
No.	Inches.	Inches.
18	1 to 12	0·270
31	12 to 18	0·209
17	18 to 24	0·162
5	24 to 30	0·105

The corresponding ages are—

a tree 12 inches diameter, 44 years;
a tree 18 ditto, 78 do.;
a tree 24 ditto, 110 do.;
a tree 30 ditto, 167 do.

In order to observe their future growth 10 trees have been measured near Kywèmakaing, in North Bilin. The trees are marked by stakes, painted white with black numbers, driven into the ground at the foot of each and the girth was measured so that the lower edge of the tape was exactly 12 inches above the upper edge of a pyingado peg driven into the tree. The following are the girth measurements taken on the 9th May 1883:—

Nos.	Inches.
1	62
2	$58\frac{1}{4}$
3	$56\frac{5}{16}$
4	$42\frac{5}{16}$
5	$38\frac{1}{2}$
6	$44\frac{7}{16}$
7	$76\frac{1}{2}$
8	$25\frac{3}{4}$
9	$50\frac{1}{2}$
10	$34\frac{1}{8}$

Expenditure.

15. The expenditure of the Working Plans division from the 25th November to the 31st May was as follows:—

Head of service.	Charged during 1882-83.	Charged during 1883-84.	Total.
	Rs. A. P.	Rs. A. P.	Rs.
AI*a*	86 7 2	40 0 0	126
AVI*b*	227 10 0	97 8 6	325
AVII*c*	1,293 10 0	1,474 10 6	2,768
Total A charges ...	1,607 11 2	1,612 8 0	3,220
BI*b*	3,012 13 3	1,562 8 0	4,575
BI*c*	.....	520 0 0	520
BII*b*	806 0 0	1,302 0 0	2,108
BIII*f*	1 1 0	4 0 0	5
Total B charges ...	3,819 14 3	3,388 8 0	7,208
GRAND TOTAL ...	5,427 9 5	5,000 11 0	10,428

CHAPTER III.

I.—Forest Fires.

PROME DIVISION.

Fire-protection in Prome division.

16. The Prome plantation was successfully protected at a cost of Rs. 39, or Rs. 0-8-3·84 per acre. The fire-tracing and watching of the Chaunggauk reserve cost Rs. 695, or Rs. 0-3-4·56 per acre. A fire broke out early in April and burnt over 67 acres, including some teak toungyas of 1879-80, and 30 saplings are reported to have been destroyed.

THARRAWADDY DIVISION.

Fire-protection in Tharrawaddy division.

17. Fire-protection was less successful than usual, especially in South Tharrawaddy, where protection has generally been easy and effectual. In Bwet two fires occurred. On the 3rd March while the fire-trace was being burnt, wind carried fire into the reserve and about 4 acres were burnt over, but fortunately the area did not include any plantations or valuable young growth. On the 19th April fire broke out in different places well within the reserve and five patches, the aggregate area of which was about 15 acres, were burnt. A part of the teak sowings of 1881 were included in this area, but no great damage was done. This fire is supposed to have been the work of an incendiary. On the 7th March a fire occurred in the north-west portion of the Nyanlè reserve and extended over about 1,300 acres, which fortunately did not include any plantations. The fire had not crossed the trace, the exterior jungle had been burnt some 10 days previously, and the fire must have been kindled by some one presumably with the view to drive game. At Gwedauksan on the 17th May a fire appeared in the plantation of 1875 and before it could be extinguished extended over 8 acres. It was a long way from the fire-trace and is supposed to have been maliciously set on fire. In such an old plantation of course the damage was small. In Kangyi about 150 acres on the south side were burnt on the 19th April. The area did not contain any plantations, being covered mostly with kaing-grass and thekkay. On the 13th May another fire broke out, but only about 2 acres were burnt before it was extinguished. Both these fires occurred inside the trace and their origin is unknown. In the Minhla-Myaung reserve 50 acres were burnt, including about 20 acres of plantation, and in the Minhla-Môkka 150 acres, including 20 acres of plantation, were burnt: these fires resulted from a strong wind getting up whilst the yas of the year were being burnt. It is not expected that the plantations have been seriously damaged. In the Môkka-Bilin reserve no less than four fires occurred. On the 31st March about 800 acres on the south side were burnt. The fire included about 30 acres of the Kywèmakaing plantation, but as there is no tall undergrowth in the plantation no perceptible damage was done. The fire is supposed to have been caused by the carelessness of some survey coolies, as they were the only people known to have been in the locality immediately before the fire was discvered. On the 17th April, when the Karens of Maung Panhle tè were burning their yas a sudden storm carried the fire across the trace which surrounded the yas, and before it could be extinguished it spread over about 1,500 acres of the reserve, 1,100 acres of which however is a portion of the Karen area which is only protected because it falls conveniently within the fire-trace. The fire included 15 acres of the plantation of 1876 and 1877. On the 27th April another fire occurred to the south-east of Panhle tè; it extended over 300 acres but did not include any plantation. On the 6th May another fire occurred on the south side of the reserve, east of the fire of the 31st March, and traversed the greater part of the Bilin block of the reserve; it extended over about 4,000 acres but did not include any plantations.

RANGOON DIVISION.

Successful results in Rangoon division.

18. Fire-protection has been carried out successfully at the Magayi and Kyetpyugan teak plantations. At Magayi 3,139 acres were protected (1,470 plantation, 1,669 reserve). The total costs incurred during the year amount to Rs. 1,674-10-3, or 8 annas 6 pies per acre, distributed thus:—

	Rs	A.	P.	Rs.	A.	P.
Paid for in 1881-82				317	3	0
1882-83.—Clearing trace	1,198	8	7			
Clearing experimental garden	10	4	0			
Burning rubbish	107	1	6			
Watchmen	19	4	6			
Sweeping off dead leaves	22	4	6			
				1,357	7	3
Total ..				1,674	10	3

At Kyetpyugan 683 acres of plantation were protected. The total cost of Rs. 640-7-0 arranges itself thus :—

	Rs.	A.	P.
Paid for in 1881-82	190	7	0
1882-83.—Clearing trace by contract	450	0	0
Total ..	640	7	0

A further sum of Rs. 134-2-3 has been paid in 1883-84 for coolies watching trace up till the 30th April: of that amount Rs. 86-2-3 were incurred up till the 31st March. The actual cost during the dry season has been Rs. 584-2-3, or 13 annas 8 pies per acre. The protection of the south-west corner of the South Zamayi reserve by means of a fire-trace could not be undertaken during the past season, as all the spare labour from the Karen tehs under Maung Myat Ne was enlisted as police while the Zaungtu dacoits were at large. It is hoped that this work will be commenced in the dry season of 1883-84.

TOUNGOO DIVISION.

Fire-protection in Toungoo division.

19. The area of fire-protected reserves was increased by the addition of the East Swa and amounts to 26,480 acres. The total cost was Rs. 2,074, or 1 anna 3 pies per acre. It is divided as follows: Pyunchaung Rs. 474, or 2 annas 2 pies per acre ; Yene Rs. 428, or 1 anna 2 pies per acre; East Swa Rs. 1,174, or 1 anna 1 pie per acre. The protection of Pyunchaung and Yene reserves cost more than last year owing to the protracted hot weather, which necessitated the maintenance of watchers for a longer period. A fire occurred on the same day in the plantations of 1868 and 1872 within the Pyunchaung reserve and extended over 6 acres. It was promptly extinguished by the watchers. As the fire broke out near a path which traverses the reserve it was probably caused by the carelessness of travellers. The damage done is slight. The protection of Yene reserve was successful. The arrangement mentioned in last year's annual report by which the neighbouring villagers were to undertake the protection of the East Swa reserve came to nothing and the work was done departmentally. A small patch of 7 acres which caught fire while the outer trace was being burnt was traversed by fire. The reserve was otherwise protected from all damage.

II.—Natural and Artificial Reproduction.

PROME DIVISION.

Teak taungyas.

20. The villagers of Kadinngazin and Ngalusan cultivated during the year in the Chaungzauk reserve 64 acres of taungya with teak and 38 acres with cutch, and countings gave 45,612 teak and 33,072 cutch seedlings, or 677 teak and 870 per acre. The cost of the 64 acres was Rs. 484 and of the 38 acres Rs. 350. The villagers of Ngalusan cultivated 34 acres of teak taungya with 600 plants per acre at a total cost of Rs. 227. The taungyas of 1881, covering 102 acres, and 15 acres of 1880 were weeded at a cost of Rs. 446, or Rs. 3-13-0 per acre. The yas of 1881 were gone over twice,—once in July and once in September.

THARRAWADDY DIVISION.

21. The taungya plantations of the year are exhibited in the following tabular form :—

Reserve or block.	Situation.	Village.	Tree.	Yas.	Area.	Number of plants. Total.	Number of plants. Per acre.	Cost. Total.	Cost. Per acre.	Remarks.
					Acs.			Rs. A. P.	Rs. A. P.	
Nyanlè	Near Myoda village ...	Myoda ...	Teak	4	20·3	19,856	978	250 11 0	12 5 7	
Gwedauksan	Near Gwedauksan ...	Gwedauksan ...	do.	8	11·1	11,500	1,036	174 4 0	15 11 2	
Kangyi	Near Kangyi ...	Kangyi ...	do.	2	3·3	2,838	860	59 10 0	18 1 1	
Minhla and Môkka, &c. ...	Near Shaukpinchaung	Aungbwètè ...	do.	13	61·3	34,403	561	566 12 0	9 3 11	
		Shwèzintè ...	do.	16	61·0	35,250	578	626 8 0	10 4 3	
Môkka and Bilin, &c ...	Near Kywèmakaing ...	Kywèmakaing ...	do.	13	22·8	23,749	1,041	338 4 0	14 13 4	
	Near S. Zanônchaung ...	Panhlaytè ...	do.	17	103·0	67,477	655	966 4 0	9 6 1	
	Near Talaingthatchaung...	Shwegyatè ...	do.	6	29·0	25,284	872	355 8 0	12 4 1	
	Near Lèbwèchaung ...	Sanyatè ...	do.	11	78·3	28,618	365	474 8 0	6 0 11	
Thônzè and Kônbilin ...	Natchaung	Dutitè ...	do.	17	51·8	27,373	528	565 4 0	10 14 7	
	Total ...	...	...	102	441·9	276,348	625	4,377 9 0	9 14 5	

With the exception of those of Sanya, they are all very good. The area planted during the year was 442 acres, which brings the total area for the division up to 3,275 acres.

22. The teak taungyas planted in 1880 and 1881 were weeded at a cost of Rs. 1,867-11-7, namely—

Cost of weeding.

		Acres.	Cost. Rs.	A.	P.
Bwet ..	1880	19	22	0	0
Nyanlè ..	1880	28	70	12	4
	1881	14	25	11	8
Gwedauksan	1880	15	88	5	4
	1881	10	20	12	4
Bawbin ..	1880	28	67	14	8
	1881	28	55	4	0
Kangyi ..	1880	58	141	3	1
	1881	14	27	0	2
Môkka Minhla	1880	38	82	8	0
	1881	131	241	4	0
Môkka Bilin	1880	136	268	12	0
	1881	259	556	4	0
Thônzè Kônbilin	1880	95	132	8	0
	1881	77	117	8	0
Total		950	1,867	11	7

In the Môkka Bilin forest near Kywèmakaing an area of 8 acres of teak was planted, the former growth of bamboos having been converted into potash. The operation cost Rs. 802-11-0, but only about Rs. 250 are fairly debitable to the plantation.

RANGOON DIVISION.

Area undertaken.

23. On the area, 20,000 to 30,000 acres in extent, selected as suitable for fire-protection and situated between the Dawè and the Kodugwè chaungs, south of Zamayi reserve, the commencement of plantations was made by the Karens of Myatnay, Pauktu, and Kokalôn tès. About 30 acres were thus cleared by 15 men, but the counting out in December only showed 3,568 plants alive, for which Rs. 36 were paid, and adding the cost of seed, Rs. 76, the average cost per acre was Rs. 3-11-8·8.

Results.

24. The seed sown first by the Karens proved bad, while the bulk of that sent from the Magayi side germinated before arrival and was put out in nursery beds near the mouth of the Madaw chaung. These plants, about 15,000 in number, are ready for planting out as soon as the soil becomes softened by rain in 1883.

Magayi plantations.

25. The whole of the Magayi plantations were weeded or cleared of creepers and of jungle-woods, &c., endangering the well-being of the young teak. In the plantation of 1875 and 1876 this work was repeated twice and in those of 1880 three times. The cost was as follows:—

Plantations.	Acres.	Cost. Rs.	A.	P.	Cost per acre. Rs.	A.	P.	Remarks.
1872 ...	142	22	10	3	0	2	6	
1873 ...	213	71	12	6	0	5	4	
1874 ...	206	130	0	0	0	10	1	
1875 ...	150	554	13	11	3	11	2	
1876 ...	302	829	0	7	2	11	11	
1877 ...	273	437	1	6	1	9	7	
1878 ...	38	61	0	0	1	9	8	
1880 ...	149	1,242	15	11	8	5	5	
1881 ...	15	25	8	9	1	11	8	
1882 ...	16	12	6	2	0	12	4	
Total ...	1,504	3,387	5	7	2	4	0	Average cost per acre.

Kyetpyugan.

26. In Kyetpyugan similar measures have since February been carried out at the north end of the plantation. The amount payable thereon up to end of the year was Rs. 73-11-3 (paid in 1883-84). The evergreen trace along the western boundary of Magayi protected area consists of 18,839 plants (mango) still alive—

Under 1 foot in height	17,000
1 foot to 2 feet in height	515
2 feet to 3 „ in height	1,013
3 „ to 4 „ in height	311
Total	18,839

TOUNGOO DIVISION.

Pyunchaung plantations.

27. The work of thinning the Pyunchaung plantations of 1867 and 1868 has been discontinued; it is hardly yet necessary; and in addition no market can be found for the saplings felled. Some 158 of these young trees were dragged to the mouth of the Thaukyegat, but even there no purchasers could be found.

3.—Experiments and exotic trees.

PROME DIVISION

Mahogany.

28. There were 14 mahogany plants, varying in height from 7 to 10½ feet surviving in the Chaungzauk reserve. Of those planted in the Prome plantation only seven are living, and these are sickly. The two near the elephant shed are growing. Rs. 73 were expended on the mulberry plantation and the protection of the mahogany plants.

THARRAWADDY DIVISION.

Mahogany.

29. During the year 67 plants were put out at Kywèmakaing and some 70 other young plants were ready for transplanting. The nine plants in the forest garden reported on last year, as well as two at Paungdè, are doing well and 10 others have since been planted out. The plantation of *Broussonetia papyrifera* was added to by the stocking of one-fourth acre with young plants raised from cuttings of both the Japanese and Tenasserim varieties. An experiment made to test the coppicing power of the plant was so successful that the portion coppiced can only be distinguished from the rest of the plantation by an examination of the stools. The bamboos in the forest garden are not thriving.

Forest garden.

30. The following exotics are at present growing in the forest garden:—

Cycas media	1	
Eucalyptus gomphocephala	6	
Eucalyptus citriodora	4	
Eucalyptus sp.	6	
Tristania conferta..	9	
Pomaderris elliptica	1	
Swietenia mahagoni	19	
Ficus elastica	13	
Vanilla	15	
Pithecolobium saman, about	300	
Broussonetia papyrifera	1½ acres stocked.	
Morus multicaulis		about 2 acres.
Ditto sp.		
Ditto sp.		
Cæsalpinia coriaria	20,000	

Some 150 different indigenous species were put out and are for the most part growing.

RANGOON DIVISION.

Mahogany.

31. There are in all 48 mahogany plants at Magayi, five of sowings of 1876 from 2 feet to 6 feet in height, 23 of sowings of 1880 and 1881, the tallest of which measures 15 feet, and 20 the produce of seed collected in Akyab during 1882. In addition to the plants put out at Magayi, 12 were sent to Akyab and 12 planted in the Conservator's garden in Rangoon.

Other trees.

32. Two *Acacia arabica* plants put out in 1877 have attained heights of 12 feet and 27 feet. Cuttings of *Ficus elastica* were made and were doing well in October, but only 73 are now alive.

CHAPTER IV.

Yield and Working.

1.—Departmental operations.

PROME DIVISION.

Work done by contractors.

33. Six contractors were employed during the year and the logs of teak extracted with cost of extraction were as follows:—

Forest.	Number of logs.	Cost of extraction.	Average cost per log.
		Rs. A. P.	Rs. A. P.
North Nawin	2,493	29,316 7 0	11 12 1
Bulay	1,202	17,192 11 0	14 4 10
Pade	190	2,521 12 0	13 4 4
Mindôn	57	570 0 0	10 0 0
Total ...	3,942	49,600 14 0	12 9 8

Outturn of teak.

34. Out of this total number 3,931 logs were floated down to Rangoon and 11 were disposed of to the Public Works Department at Prome and realized Rs. 960: 3,856 logs were neaped.

Other woods.

35. Two hundred and twenty-two in and 133 thitya and 157 ingyin logs were extracted from the Myedè forests and brought down to the Prome depôt at a cost of Rs. 1,700, or Rs. 3-5-2 per log. This timber was extracted under orders of the local Government for public works, but not a single log was disposed of.

Outstandings.

36. At the end of the year under review two contractors had outstandings amounting to Rs. 23,250. Contractor Maung Shwe Byu was unfortunate in losing four elephants and received an advance of Rs. 4,000 to replace them, the new animals being given as security. Rs. 16,250 were recovered from him during April 1883, and the balance outstanding is Rs. 4,000. Maung Shwe Thaing received a similar advance of Rs. 3,000 for the purchase of two elephants to carry on work.

THARRAWADDY DIVISION.

Outturn of teak.

37. The Tharrawaddy division found employment for 37 contractors and the year's outturn of teak was—

Forest.	Number of logs.	Cost of extraction.	Average cost per log.
	No.	Rs. A. P.	Rs. A. P.
Shwele	1,248	12,111 13 0	9 11 3
Taungnyo	4,828	39,818 1 0	8 3 11
Minbu	617	5,551 2 0	8 15 11
Bawbin	1,325	11,612 2 0	8 12 2
Gamên'	1,383	12,340 9 0	8 14 9
Minhla	425	3,808 14 0	8 15 4
Môkka	193	1,386 1 0	7 2 10
Bilin	719	6,165 0 0	8 9 2
Kônbilin	267	2,009 4 0	7 8 4
Thôngô	1,025	9,321 12 0	9 1 6
Total ...	*12,030	1,04,124 10 0	8 10 5

Thirty-five logs were disposed of locally, and the balance 11,995 logs, were sent to depôt. The total amount paid to contractors during the year was Rs. 1,00,471, which includes Rs. 48 paid in satisfaction of a claim on 12 logs disposed of as waif in the previous year. Rs. 3,829, exclusive of a deduction of Rs 65 on account of fines, were due to contractors for work done at the close of the year. Of the 11,995 sent to depôt, 11,676 were floated and delivered at a total cost of Rs. 1,01,567-6-0 or Rs. 8-11-2 per log. The remaining 319 logs were sent by rail from Oôkpo and cost—

	Rs.
Delivered at Oôkpo railway station	2,424
Loading charges	248
Freight and unloading	2,295
Total ..	4,967

or Rs. 15-9-2 per log. Neaped logs counted in the various streams at the end of the floating season numbered 2,391. The outstandings at the close of the year amounted to Rs. 44,831 and were due to the great mortality amongst the elephants. With about one exception (an outstanding of Rs. 5,426 against Maung Mu) the entire sum is secured by work done or elephants.

RANGOON DIVISION.

Contractors.

38. There were 15 contractors employed in the Rangoon division, but only five of these were working teak, the others extracting woods of other kinds.

Outturn of teak.

39. From the Pegu forests 1,436 logs of teak were extracted and delivered in Rangoon at an average cost of Rs. 14-3-11 per log. Refuse teak, amounting to 2,713 logs and pieces, was extracted, and of these 2,365 were brought to Rangoon for disposal, 348 being sold at Pegu. The contractor was paid half the sum realized on the sale of the timber, and this averaged Rs. 20-6-3 on 341 of the logs sold at Pegu and Rs. 13-12-1 on the logs brought to Rangoon.

* This number includes 32 logs extracted and included in last year's divisional balance, form 62.

Other woods.

40. The following is a list with cost of the logs of timber other than teak delivered at Rangoon :—

	Logs.	Cost. Rs.	Average. Rs.	A.	P.	
Thitka	65	483	7	6	11	
Do.	5	31	6	3	2	
Kanyin	161	1,329	8	4	0	
Do.	5	31	6	3	2	
Pyinma	17	104	6	1	10	
Do.	4	22	5	8	0	
Pyingado posts	12	48	4	0	0	
Other kinds	12	73	6	1	4	
Do	86	637	7	5	6	
Confiscated mango	48	428	8	14	8	
Kanyin	232		10	10	3	only 43 paid for.

41. During the year under review payments were made on timber extracted during 1881-82 as follows :—

Disbursements.

	Logs.	Cost. Rs.	Average. Rs.	A.	P.
Teak	83	1,486	17	14	5
Thitka	88	764	8	10	10
Pyinma	4	22	5	8	0
Pyingado	275	1,102	4	0	1

42. The outstandings at the close of the year were Rs. 5,903 as against Rs. 1,139 at the commencement, but all covered by work done.

Outstandings.

TOUNGOO DIVISION.

43. The following statement shows the outturn of Government timber from the different forests, the sums paid for extraction during the year, and the average cost per log :—

Outturn and cost.

Forest.	Wood.	No.	Paid for during the year. No.	Amount. Rs.	A.	P.	Cost per log. Rs.	A.	P.	Remarks.
Kabaung	Teak ...	1,111	960	11,904	2	11	12	6	4	
Saing	Do. ...	789	789	6,341	5	0	8	9	8	
Swa	Do. ...	97	97	1,348	13	8	13	13	8	
Yené	Do. ...	79	79	1,090	7	8	13	12	10	
Pyu	Do. ...	343	343	2,129	13	10	6	3	4	
Kun	Do. ...	150	150	325	0	0	2	2	8	
Yaukthwa	Do. ...	50	50	575	1	6	11	8	0	
Kyaukmasin... ...	Do. ...	602	17	318	8	0	18	11	5	½ profit. Sold at Toungoo
Mehaw	Do. ...	97	...	.....			.....			
Minye	Do. ...	118	...	.....			.....			
Myohla	Do. ...	337	159	3,618	12	8	22	12	2	Ditto.
Kwethe	Do. ...	91	91	964	4	11	10	9	6	
Banbwe and Kunaung ...	Do. ...	503	57	462	0	0	8	1	8	
Kanni	Do. ...	538	538	3,464	3	3	6	7	0	½ profit.
Total ...	Teak ...	5,355	3,280	32,537	4	5	9	14	8	
Kanni and Kunaung ...	Pyingado	2,100	2,098	16,256	4	0	7	11	11	Telegraph posts.
Myohla	Thitka ...	31	31	340	10	0	10	15	9	
Pathi	Do. ...	311	311	3,754	10	8	12	1	2	
Kabaung	Do. ...	13	13	157	8	0	12	1	10	
Swa	Do. ...	6	6	72	5	5	12	0	10	
Thaukyaygat ...	Do. ...	10	10	126	14	8	12	11	0	
Total ...	Thitka ...	371	371	4,452	0	9	12	0	0	
Myohla	Pyinma...	67	67	414	4	9	6	2	11	
Saing	Do. ...	45	45	455	10	8	10	2	0	
Lepadaing	Do. ...	87	127	400	0	0	3	2	4	
Total ...	Pyinma...	199	239	1,269	15	5	5	4	11	
Kanni	Kanyin...	23	23	285	0	0	12	6	3	

The total number of logs extracted amounts to		8,048
Add balance from last year :—		
Pyinma	111	
Teak	136	
Timber *en route*	233	
		480
		8,528
Of these were delivered at Rangoon and Shwegyin		5,665
Sold at Toungoo		1,127
Total ..		6,792
Leaving a balance of ..		1,736

There were at the Toungoo and other depôts in the division—		
Teak	870	1,188
Kanyin	28	
Pyinma	116	
Thitka	174	
Drift at Myitkyo		321
In transit as per passes		248
Sunk *en route* to Rangoon		7
Total ..		1,759

or 23 in excess of the quantity extracted. This is explained under drift.

Outstandings.

44. At the close of the year five contractors' accounts showed outstandings amounting to Rs. 2,489-11-2. Of this sum, Rs. 890-12-0 owing by Maung Nyo and Maung Thaing will hardly be recovered. The money was advanced them to purchase an elephant to work with. The animal died, the men have no money, and no timber in the forests worked out. The remaining outstandings are more than covered by work done.

Railway sleepers.

45. The contract for the supply of sleepers to the Railway was closed by the making over of 16,817 pyingado and lèza sleepers. Rs. 27,327 were realized and Rs. 20,932 expended on this account.

SHWEGYIN DIVISION.

Teak.

46. Three hundred and sixty logs of refuse teak were worked out of the Kawliya and Baingda forests and delivered in Rangoon; they were paid for at half-sale proceeds rate, or Rs. 26-6-10 per log. The revenue from this timber as well as the cost of extraction has erroneously been placed to the Toungoo division.

Kanyin.

47. A contractor extracted 200 kanyin logs, taking half the timber as payment for extraction.

Sleepers.

48. The following statement shows the outturn of sleepers and the number made over during the year to the Railway Department :—

Timber from which sleepers were cut.	Number converted.	Number made over to Railway.	Balance in hand.
Balance in hand	9,000	...	9,000
Teak	23,870	19,870	18,000
Pyingado	61,989	50,989	
Pyinma	4,153	2,653	
Taukkyan	6,351	4,851	
Total ...	1,05,363	78,363	27,000

An outstanding of Rs. 4,365 due from the sleeper contractors was fully covered by the sleepers in hand and not paid for.

WESTERN DIVISION.

Outturn.

49. Eighty logs of inferior teak in course of extraction were found to be of too little value to bring to depôt and were disposed of to the contractor at Rs. 15 per ton. Contractors delivered 712 logs of timber of other kinds at the Bassein depôt at a cost of Rs. 5,058-8-0.

Outstandings.

50. The total outstandings of the division at the close of the year amounted to Rs. 9,957-10-8. Of this sum, items amounting to Rs. 483-8-0 are deemed irrecoverable. One item of Rs. 554-5-4 is doubtful of recovery. The balance of outstandings is either covered by work done or value of elephants mortgaged to the Department.

2.—Removal of Produce by Purchasers.

PROME DIVISION.

Cutch.

51. Five thousand cutch trees, at Rs. 3 per tree, were sold to the Bombay Burma Trading Corporation, Limited, during 1881-82; they extracted 249 trees only, and during the year under report 3,131: this brings the total up to 3,380 trees.

Trade permits.

52. Trade permits were issued during the year from the Prome forest office and the following fees on 558 in, 232 ingyin and theya, and 305 pyingado amounted to Rs. 407-12-0.

Revenue realized.

53. The felling fees collected by the Deputy Commissioner of Thayetmyo on 1,718 in, and 1,781 ingyin and theya amounted to Rs. 1,320 and by the Deputy Commissioner of Prome on 2,180 ingyin to Rs. 1,090. The tonnage revenue of both the Prome and Thayetmyo districts collected by the Forest Department amounted to Rs. 2,428-2-3. Total of felling fees, Rs. 2,817-12-0, is in excess of the total tonnage fees, which is due no doubt to a large number of logs in which permits were taken not having been extracted prior to the coming into force of the new rules. Particulars of revenue collections under the new rules which came into force on the 1st July 1882 will be found in the following tables. No licenses for reserved trees were issued under the Act.

Under No. VI, trade license for unreserved timber :—

No.	Description of timber.	Revenue.		
		Rs.	A.	P.
356	Dugyis or hlwazas ...	712	0	0
140	Yathits ...	140	0	0
158	Small posts ...	15	14	0
...	Poles below 1 foot girth	.....		
	Total ...	867	14	0

Under No. VII, prepaid license for unreserved timber :—

No.	Description of timber.	Revenue.		
		Rs.	A.	P.
2,634	Dugyis or hlwazas ...	3,951	0	0
6,747	Yathits ...	5,060	4	0
8,753	Small posts ...	626	13	9
21,975	Poles below 1 foot girth	54	15	0
	Total ...	9,693	0	9

In, thitya, and ingyin were the principal timbers extracted. Rs. 957-3-0 were realized from the Bombay Burma Trading Corporation, Limited, for green in at Re. 1 per ton and Rs. 245-5-0 for dead in at 8 annas per ton; total Rs. 1,202-8-0.

Revenue on permit timber.

54. The following is a summary of collections on timber extracted under trade permits and licenses :—.

	Rs.	A.	P.
B permits	5,245	14	3
No. VI, licenses	867	14	0
„ VII, do.	9,693	0	9
Bombay Burma Trading Corporation, Limited, under B permits but at different rates	1,202	8	0
Total ..	17,009	5	0

Revenue on minor forest produce.

55. The revenue taken on 2,186 cutch licenses amounted to Rs. 43,720, a decided increase in the revenue as compared with last year. The revenue on charcoal permits amounted to Rs. 35 and for thitsi tapping Rs. 44 were taken. Fees for grazing cattle, employed for dragging cutch logs during the rains in Chaungzauk and the cutch reserve of Tintiaw amounted to Rs. 12-6-0.

THARRAWADDY DIVISION.

56. From reserves were extracted—

Timber extracted from reserves.

			Rs.	A.	P.
Cutch trees		8,315	34,693	0	0
Unreserved logs		2	4	0	0
Kanyin	cubic feet	86	17	3	3
Pyinma	"	2,023	202	12	6
Thingan	"	609	61	10	0
Unreserved	"	2,081	208	1	7
Bamboos	No.	1,210,978	3,032	12	0
Grazing cattle		261	127	4	0
Thatch	bundles	25,919	453	0	6
Shaw fibre	viss	23,881	238	13	3
Cigar-leaves	No.	4,506,800	225	6	0
Kanyin-oil licenses		70	350	0	0
Thin	cart-loads	5	5	0	0
Honey licenses		4	34	0	0

57. From unreserved forests were extracted—

Timber extracted from outside reserves.

Teak trees		1,763	4,662	8	0
Cutch trees		2	10	0	0
Teak logs		11	456	11	0
Unreserved logs		3,376	4,807	12	0
Teak	cubic feet	5,013	1,400	6	10
Kanyin	"	91,041	8,473	11	0
Pyinma	"	8,995	690	12	6
Thingan	"	1,170	117	15	6
Do., unreserved	"	17,223	884	6	3
Do., poles		906	77	3	0
Charcoal licenses			819	0	0
Cutch	cauldrons	1,211	24,220	0	0
Kanyin-oil licenses		74	154	0	0
Thitsi-oil licenses		8	16	0	0
In-oil licenses		16	74	0	0

Revenue realized.

58. The total revenue under II is Rs. 86,517, an increase as compared with last year of Rs. 26,412, accounted for as follows :—

	Increase.	Decrease.
	Rs.	Rs.
Teak standing		7,294
Do. timber	502	
Reserved woods	7,175	
Unreserved woods		5,098
Cutch standing	29,847	
Charcoal	153	
Bamboos	688	
Grazing		5
Cutch licenses		220
Thatch	155	
Shaw	11	
Cigar-leaves	158	
Kanyin-oil	316	
Thitsi-oil	16	
In-oil		1
Thin	5	
Honey	14	
Fruit		10

The decrease on account of standing teak trees is partly accounted for by their being no sales to the Public Works Department, as there were in the previous year, and partly by a less number of paddyfield teak being sold. The decrease under unreserved woods is wholly accounted for by there being no sales of pyingado to the Public Works Department.

RANGOON DIVISION.

Realizations on permit timber..

59. The following abstract statement shows that the total amount of Rs. 31,464-3-9 was obtained under II*a* from timber, 28,000 logs, posts and poles, and 368 tons removed by purchasers :—

	Rs. A. P.	Rs. A. P.
B Permits—		
Felling fees—		
72 in logs	18 0 0	
608 pyingado	304 0 0	
		322 0 0
Tonnage—		
7720 in logs	7,426 8 0	
209 logs and 351·29 cubic feet pyingado ..	1,330 9 2	
346 kanyin	1,278 2 0	
		10,035 3 2
Prepaid trade license for reserved trees other than teak: one license issued—		
16⅔ tons kanyin		100 0 0
Purchase certificate—		
39 teak		460 0 0
Trade license for unreserved timber—		
License VI : 97 issued—		
2,634 dugyis or hlwazas	5,268 0 0	
2,453 yathits	2,453 0 0	
1,491 poles	230 0 0	
Passing fees	181 7 0	
		8,132 7 0
Extracted without license in ignorance of forest rules—		
745 thayet	1,281 9 0	
44 kaungmu	293 15 6	
1 thitka	13 3 3	
6 other kinds	5 2 0	
66 taukkyan	68 0 0	
1 boat-hull	30 0 0	
80 hlwazas, 151 yathits, and 120 poles ..	646 9 6	
		2,338 7 3
License VII : 149 issued—		
2,700 dugyis or hlwazas	4,053 0 0	
8,045 yathits	6,007 0 0	
470 poles	13 0 4	
Passing fees	3 2 0	
		10,076 2 4
Total ..		31,464 3 9

Minor produce.

60. The total amount of Rs. 3,252-3-6 obtained from minor forest produce was distributed as follows :—

		Rs. A. P.	Rs. A. P.	
License VIII : 67 issued—	Firewood	495 8 6		
	Charcoal	578 0 0		
			1,073 8 6	II*b*
Bamboos (reserves ..	.. .. ..		1,882 7 0	II*c*
Grazing (reserves) ..	.. .. ..		38 4 0	
Thin (reserves) ..	.. .. ..	8 0 0		
Canes ..	.. .. ..	2 0 0		
Salu ..	.. .. ..	4 0 0		
Thetkè ..	.. .. ..	23 0 0		
Shaw	.. .. ..	108 0 0		
License X : 42 issued—				
Kanyin-oil ..	.. .. ..	118 0 0		
			263 0 0	II*e*
	Total ..		3,252 3 6	

TOUNGOO DIVISION.

Timber extracted by Public Departments.

61. About 110 tons of pyingado were extracted by the Telegraph Department for posts in the commencement of the year and tonnage duty, Rs. 503, was paid. The Executive Engineer, Toungoo Division, worked out 36½ tons pyinma, paying Rs. 73 duty; and also utilized some teak poles containing 167 cubic feet, for which Rs. 10 per ton, or Rs. 33-7-0, were paid.

Revenue on trade permits.

62. The revenue during the year on trade permits and tonnage duty under the old rules was as follows :—

Range.	Felling fees.					Tonnage duty.				
	Thingan.	In.	Pyinma.	Pyingado.	Amount.	Thingan.	In.	Pyinma.	Pyingado.	Amount.
					Rs.					Rs. A. P.
Thagaya	14	...	...	...	7	69·4	...	...	...	312 7 5
Zeyawadi	17	190	140	...	91	...	116·8	46·7	111·6	829 12 7
Bonmadi	...	...	4	4	3	5·9	...	29·3	...	99 13 8
Total ...	31	190	144	4	101	75·3	116·8	76·	111·6	1,242 1 8

The following statement shows the revenue realized under the new rules framed under the Forest Act, 1881 :—

Range.	License No. III.		License No. V.			License No. VII.				
	Teak.	Amount.	Pyinma.	Thingan.	Amount.	Poles.	Small pieces.	Yathits.	Dugyis and hlwazas.	Amount.
	Logs.	Rs.	Tons.	Tons.	Rs.	No.	No.	No.	No.	Rs. A. P.
Thagaya ...	...	...	...	...	...	4	287	40	217	375 15 5
Zeyawadi ...	15	16	15	9½	196	...	174	110	84	145 10 2
Bonmadi ...	...	...	31	...	248	650	702	177	870	1,451 1 7
Total ...	15	16	46	9½	444	654	1,163	327	1,121	1,972 11 2

or roughly 3 tons teak realizing Rs. 16, or Rs. 5-5-0 per ton, 46 tons pyinma, 9½ tons thingan realizing Rs. 444, or Rs. 8 per ton, and 1,000 tons unreserved woods, clearing Rs. 1,972-11-2, or Rs. 2 per ton.

Deferred payment licenses.

63. Deferred payment licenses were issued as follows :—

Range	License No. IV.		License No. VI, unreserved woods.		
	Thingan.	Pyinma.	Small poles.	Yathits.	Dugyis and hlwazas.
	Tons.	Tons.			
Thagaya	12	3	115	68	36
Zeyawadi	2	7	100	...	75
Bonmadi	...	...	144	...	247
Total ...	14	10	359	68	358

Free permits.

64. Free permits granted prior to the 1st July 1882 by Subordinate Magistrates were as follows :—

Township.	Pyingado.	Thitya.	In.	Pyinma.	Padauk.	Ingyin.	Various.	Total.
	Trees.	Trees.	Trees.	Trees.	Trees.	Trees.	Trees.	Trees.
Bonmadi	214	198	482	262	2	131	84	1,373
Thagaya	347	265	355	147	3	18	15	1,150
Myoma	210	234	1,313	103	7	18	132	2,017
Zeyawadi	65	37	150	685	2	...	35	974
Kanni	21	20	14	14	...	...	12	81
Total ...	857	754	2,314	1,211	14	167	278	5,595

Minor forest produce.

65. Rs. 2,020 were collected by the issue of cutch permits. Permits for charcoal realized Rs. 37-8-0. Permits for the extraction of wood-oil amounted to Rs. 344 and for thitsi to Rs. 643. Rs. 16 were received on permits to collect dammer. The sale of minor produce from the Saing reserve brought in Rs. 99, as follows :—

	Rs.	A.	P.
Thetkè	0	12	0
Honey	32	0	0
Canes	66	4	0
Total ..	99	0	0

SHWEGYIN DIVISION.

Woods of other kinds.

66. Two small thingan and one pyinma boat-hull realized Rs. 12, and eight confiscated pyingado posts were sold for Rs. 40. Nineteen thousand three hundred and forty pyingado scantlings, measuring 249 tons, were sold to the Shwegyin saw-mill owners at Rs. 5 per ton, realizing Rs. 1,246.

Trade permits.

67. During the year under review trade permits for 229 trees of the reserved kinds were issued, the cutting fees on that timber amounting to Rs. 112-12-0, and the tonnage duty on 365 logs being Rs. 1,188-14-1. The amount of duty realized on 4,238 trees of the unreserved kinds for the year was Rs. 2,846-5-9, including Rs. 101-13-9 for 2,295 small posts and poles.

Charcoal.

68. Rs. 388-9-2 were realized on account of manufacturing charcoal on 78 permits :—

	Rs.	A.	P.
50 at Rs. 5 per mensem	250	0	0
28 at annas 8 ditto	138	9	2

Of this amount Rs. 148-9-2 were realized by the Civil Department.

Kanyin-oil.

69. The extraction of kanyin-oil realized Rs. 508 on 148 permits :—

	Rs.	A.	P.
106 at Rs. 4	424	0	0
42 at „ 2	84	0	0
148 Total ..	508	0	0

Thitsi.

70. Three permits only were issued from the Shwegyin forest office; but the monopoly of extracting thitsi in the Sittang sub-division was sold by auction by the Deputy Commissioner and fetched Rs. 400, being Rs. 20 less than it sold for last year.

3.—*Rangoon Agency and Timber Depôt.*

Timber in hand.

71. The balance of timber in hand on the 1st April 1882 was as follows :—

Teak.

Logs.		Crooks.	Sleepers.	Tons.
I class.	II class.			
417	7,775	...	79	7,033

Wood of other kinds.

Logs.	Sleepers.	Tons.
833	...	938

Arrival of timber.

72. The arrivals of timber during the year as exhibited in form 60 are :—

		Teak.	Other Woods.	Total.
Tharrawaddy		12,000	15	12,015
Rangoon		4,300	393	4,693
Prome		3,886	..	3,886
Toungoo		3,899	2,086*	5,985
Agency	Sleepers	..	6,868	6,868
	Scantlings	..	27	27
Total ..		24,085	9,389	33,474
Drift and confiscated timber	Rangoon	575	164	739
	Shwegyin	548	124	672
	Agency	855	62	917
Total ..		1,978	350	2,328
GRAND TOTAL ..		26,063	9,739	35,802

*This includes 1,982 telegraph posts shipped to Calcutta for the Director-General of Telegraphs.

Teak.

Logs.		Crooks.	Sleepers.	Tons.
I class.	II class.			
2,527	23,536	...	...	26,365

Wood of other kinds.

Logs.	Sleepers.	Telegraph posts.	Scantlings.	Tons.
862	6,868	1,982	27	1,087

Rangoon division.

73. Six hundred and ninety-one logs of drift timber were received from the Rangoon division, including thitka, in, pyinma, kanyin, and other woods, 548 logs of which were returned to claimants on payment of salvage, namely, Rs. 1,943-8-5, 147 logs were sold and realized Rs. 3,230, leaving a balance of one log; 48 logs of other woods were confiscated and sent to the depôt: these logs were sold and realized Rs. 856.

Shwegyin division.

74. Six hundred and seventy-two logs of unclaimed drift timber were received from the Shwegyin division, 210 logs were sold and realized Rs. 4,878, leaving a balance of 462 logs.

Agency division.

75. Seven hundred and two logs of drift timber were collected by depôt agency, including thitka, in, pyinma, padauk, kanyin, and other woods, at a cost of Rs. 864-14-2, 570 logs were returned to claimants on payment of Rs. 1,195 salvage, 59 logs were sold and realized Rs. 1,654, leaving a balance of 73 logs: 215 logs of sea-drift timber were brought into the depôt, 18 logs were returned to claimants on payment of Rs. 727-3-5 salvage, 134 logs were sold and realized Rs. 6,742, leaving a balance of 63 logs.

Disposals.

76. The number of logs, telegraph posts, sleepers, and scantlings disposed of during the year and sums realized thereon as exhibited in form 61 are—

		Rs.	A.	P.
Auction sales	14,123	7,13,830	0	0
Indent	4,748	3,55,878	14	9
Telegraph posts	1,982	21,802	0	0
Sleepers	6,882	12,852	2	0
Scantlings	27	12	8	0
Dwani	15	....		
Drift timber	771	20,146	0	0
Ditto to claimants	1,139	4,033	0	10
Total	29,687	11,28,554	9	7

giving an average of Rs. 56-10-3 per log, or Rs. 57-1-0 per ton, exclusive of sleepers, telegraph posts, scantlings, and drift timber.

Teak.

Logs.		Crooks.	Sleepers.	Tons.
I class.	II class.			
1,301	17,872	...	14	18,780

Woods of other kinds.

Logs.	Sleepers.	Telegraph posts.	Scantlings.	Tons.
1,628	6,868	1,982	27	1,932

Timber disposals.

77. The following table shows the amount and kind of timber, &c., sold on account of the different divisions :—

Division.	Description of timber.	Pieces.	Amount.		
		No.	Rs.	A.	P.
Tnarrawaddy	Teak logs	6,725	3,78,789	6	4
	Woods of other kinds	15	.....		
	Total ...	6,740	3,78,789	6	4
Rangoon	Teak logs	3,643	2,12,904	6	7
	Woods of other kinds	752	15,288	0	0
	Drift teak logs	621	5,815	8	0
	Drift woods of other kinds	215	1,374	0	0
	Confiscated jungle-wood	48	856	0	0
	Total ...	5,279	2,35,737	14	7
Toungoo	Teak logs	3,866	2,18,588	1	0
	Woods of other kinds	289	6,294	8	9
	Pyingado telegraph posts	1,982	21,802	0	0
	Total ...	6,137	2,46,684	9	9
Shwegyin	Woods of other kinds	96	1,633	0	0
	Drift teak logs	86	3,622	0	0
	Drift woods of other kinds	124	1,256	0	0
	Total ...	306	6,511	0	0
Prome	Teak logs	3,500	2,41,211	8	1
Agency	Teak sleepers	14	14	0	0
	Sleepers, woods of other of kinds ...	6,868	12,838	2	0
	Scantlings, ditto ditto ...	27	12	8	0
	Drift teak logs	578	3,187	11	5
	Drift woods of other kinds	84	487	8	0
	Sea-drift timber	154	8,080	5	5
	Total ...	7,725	24,620	2	10

Depôt balance.

78. The balance of timber in hand at the Government timber depôt at the close of the official year was as follows :—

Teak.

Logs.		Crooks.	Sleepers.	Tons.
I class.	II class.			
1,643	13,439	...	65	14,668

Woods of other kinds.

Logs.	Sleepers.	Telegraph posts.	Scantlings.	Tons.
72	...	...	...	63

valued at Rs. 37-5-9 per log all round, or a total of Rs. 568,607-8-0 as per classified list of timber in hand on the 31st March 1883.

The following table shows the amount of timber in hand on account of the several divisions at the close of the year :—

Division.	Teak logs.	Logs, woods of other kinds.	Teak sleepers.	Drift timber.		Total.
				Teak logs.	Logs, woods of other kinds.	
Tharrawaddy	10,047	...	...	...	...	10,047
Rangoon	670	36	...	1	...	707
Prome	1,796	...	...	...	...	1,796
Toungoo	1,978	33	...	...	...	2,006
Shwegyin	...	...	...	462	...	462
Agency	...	...	65	133	3	201
Total ...	14,486	69	65	596	3	15,219

79. The yield of Government forests for each division, as far as data at hand will permit of compilation, is exhibited in the following table :—

Yield of Government Forests, 1882-83.

Division.	Extracted.	Teak.		Reserved trees extracted.	Unreserved trees extracted.	Sleepers, teak.	Sleepers, other kinds.	Scantlings, other kinds.	Cutch trees.	Shaw fibre.	Bamboos.	Canes.	Charcoal.	Wood and other oils.	Thatch.	Salu leaves.	Honey.	Poles.	Posts.
		Logs and pieces.	Tons.	Logs.	Logs.	No.	No.			Viss.	No.	No.	Bkts.	Viss.	Bdls.		Viss.	No.	No.
THARRAWADDY ...	By Government agency	11,998	12,100	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	" purchasers	1,874	600	6,216	4,538	...	...	...	61,817	23,881	1,210,978	...	81,900	2,016	25,919	4,506,800	100	906	...
	" trade permits																		
	Free	180	45	37	...	...	...	...	...	—	...	...	...	...	...	—	.	...	...
RANGOON ...	By Government agency	4,149	4,200	462	840	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	" purchasers	...	...	441	28,079	...	...	...	...	4,704	731,965	2	...	1,600	Cart loads. 77	Cart loads. 9	...	...	470
	" trade permits																		
	" Free	...	...	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
PROME ...	By Government agency	3,942	4,023	512	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	" purchasers	91	169	...	18,379	...	...	...	99,600	...	...	...	600	...	...	...	...	30,910	...
	" trade permits																		
	Free	27	17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOUNGOO ...	By Government agency	5,588	5,600	593	2,123	...	16,817	...	...	...	400	...	...	...	...	...	...	...	...
	" purchasers	15	3	1,320	3,265	...	...	...	14,000	...	...	660	3,750	2,000	100	...	100	...	...
	" trade permits																		
	Free	10	9	1,205	5,384	...	...	...	...	...	...	...	...	...	...	...	...	...	...
WESTER ...	By Government agency	...	...	260	457	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	" purchasers	96	2,800	53	8,930	...	...	...	900	...	384,565	...	33,000	...	...	...	...	7,703	3,410
	" trade permits																		
	Free	15	14	112	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SHWEGYIN ...	By Government agency	...	...	255	...	19,870	58,493	...	...	...	...	...	...	...	...	...	...	...	...
	" purchasers	1,499	62	261	2,596	...	...	19,340	...	...	...	...	14,100	6,660	...	...	...	908	1,395
	" trade permits																		
	Free	...	...	588	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	29,484	29,642	12,330	74,631	19,870	75,310	19,340	176,317	28,585	2,327,908	662	133,350	12,276	...	...	200	40,427	5,275

H. C. HILL,
Offg. Conservator of Forests, Pegu Circle.

APPENDICES.

Memorandum showing the principal points in which the revised notifications and rules published under the Burma Forest Act, 1881, in the "British Burma Gazette" of 13th January 1883 differ from those published on the 1st July 1882.

Notification No. 6.—The duty on timber floated down the Salween and its tributaries, being the produce of forests situate beyond the frontier of British Burma, has been reduced from one per cent. to one-half per cent. *ad valorem.*

Notification No. 9.—This notification is new.

Notification No. 11.—The Arakan division has been exempted from the provisions of these rules. Separate rules have been made for Arakan and are published in notification No. 12.

Rule 1.—The punishment provided by the Act for certain acts done in contravention of this rule has been set out.

Rule 4.—Ditto.

Rule 5.—Ditto.

Rule 10.—As the Act provides penalties for the breach of Rules 1, 4, and 5, the penalties provided by this rule have been made to apply to infringements of Rules 8 and 9 only.

Rules 12 to 15.—The revised rules published in this Department notification No. 79, dated the 14th September 1882, have been embodied.

Rule 18.—Gyaing.—Gyaing river has been added to the list of timber-stations in the Salween division of the Tenasserim Forest circle.

Rule 32.—The fees for the renewal of the registration of hammer-marks have been greatly reduced.

Rule 36.—This was Rule 37 under the old rules.

Rule 37.—This was Rule 38 under the old rules.

Rule 38.—This was Rule 36 under the old rules.

The words "Chief Commissioner" have been substituted for "Conservator" in this rule.

Rule 39.—A similar alteration has been made in several parts of this rule, in which certain other alterations of an unimportant character have also been made.

Rule 40.—The figure 36 has been substituted for 37 to suit the re-arrangement of the rules in this section.

Appendix.—Verbal alterations have been made in several of the license forms.

License No. III has been made to refer to teak only and to be subject to the condition that the licensee should hold a grant or lease of the area to which the license relates. The disposal of trees of the reserved kinds other than teak standing upon land of which a grant or lease has been given will be provided for by a rule under the Land and Revenue Act.

License No. VI.—Provision has been made for permitting persons to cut timber for fire-wood free of charge.

Notification No. 12.—This notification, which contains rules applicable to the Arakan division only, is new.

Departmental directions.—A provision has been inserted to the effect that when a new mark is registered on payment of a fee of Rs. 100, a copy of the mark is to be cut on wood without extra charge.

REVENUE DEPARTMENT.

NOTIFICATIONS, RULES, AND DEPARTMENTAL DIRECTIONS UNDER "THE BURMA FOREST ACT, 1881."

No. 3 (FORESTS).—*The 10th January 1883.*—The following notification, which was published at page 125, Part I of the *British Burma Gazette*, dated the 25th March 1882, is republished for general information :—

No. 24 (FORESTS).—*The 25th March 1882.*—Under the provisions of section 1 of the Burma Forest Act, 1881, the Chief Commissioner hereby directs that the said Act shall come into force on the 1st July 1882.

No. 4 (FORESTS).—*The 10th January 1883.*—The following Notifications, Rules, and Departmental Directions under the Burma Forest Act, 1881, are published for general information in supersession of all previous notifications under the Act, with the exception of this Department notification No. 24, dated the 25th March 1882, republished above :—

No. 5 (FORESTS).—*The 10th January 1883.*—Under clause (*a*) of section 35 of the Burma Forest Act, 1881, the Chief Commissioner declares that from the date of this notification the undermentioned trees, standing on any land at the disposal of Government, shall be reserved trees within the local limits hereinafter named :—

Thitka Thitgado Kaunghmu Thingan Pyinma or Lèzani Kanyin	In all districts of the Pegu forest circle, except those of the Arakan Commissionership
Pyingado Pyinma or Kamaung Thitka Thitgado	In all districts of the Arakan Commissionership.
Thitka Thitgado Padauk Thingan Kaunghmu Pyinma or Lèzani	In the Amherst and Salween Hill Tracts districts.
Thitka Thitgado Padauk Thingan or Magale Karawo Anan Kanzaw	In the Tavoy and Mergui districts

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No. 6 (FORESTS).—*The 10th January 1883.*—Under section 39 of the Burma Forest Act, 1881, the Chief Commissioner directs that on all timber floated down the Salween and its tributaries, being the produce of forests situate beyond the frontier of British Burma, a duty of one-half per cent. *ad valorem* shall be levied.

The duty shall be assessed and levied at Kado by the Deputy Conservator of the Salween Forest division or, in his absence, by some other Forest Officer specially authorized by him in that behalf.

For the purposes of the assessment of the said duty, the value of the different classes and forms of timber shall be taken at the market or selling price of the said timber at Moulmein.

In the event of any dispute or question arising as to the market value of any timber brought for assessment, such question or dispute shall be settled by the Conservator of Forests.

All duty shall be paid within a period of two years from the date of arrival of the timber at the Kado revenue-station, failing which the timber, or such part of it as may be sufficient to realize the amount of duty, may be sold by the officer charged as aforesaid with the levy of duty.

No. 7 (FORESTS).—*The 10th January 1883.*—Under section 46 of the Burma Forest Act, 1881, the Chief Commissioner directs that all unmarked timber in the following areas shall be deemed to be the property of Government, unless and until any person shall establish his right thereto as provided in Chapter VII of the said Act:—

Pegu circle.—The area covered at the highest rise by the rivers Irrawaddy, Sittang, and Ngawun, Hlaing below Sanywe village, Pegu below Awaing village, Paunglin below Hlègu village, and by all tidal creeks and the sea at high water.

Tenasserim circle.—The area covered at the highest rise by the rivers Tenasserim, Salween, Bilin below the village of that name, Dondami below Ihè, Gyaing below the village of that name, Ataran below the mouth of the Winyaw, Tavoy below Sinzeik, and the area covered by all tidal creeks and the sea at high water.

No. 8 (FORESTS).—*The 10th January 1883.*—Under section 46 of the Burma Forest Act, 1881, the Chief Commissioner exempts timber of the unreserved kinds, which has been extracted under Forest Rule 8 (*a*), from the provisions of notification No. 7, dated the 10th January 1883, provided that such timber be not found below the place at which its utilization is permissible under Rule 8 (*a*) of the Forest Rules.

No. 9 (FORESTS).—*The 10th January 1883.*—Under section 46 of the Burma Forest Act, 1881, the Chief Commissioner exempts from the provisions of that section all timber which has paid duty at, and has been passed out of, the Kado timber-station.

No. 10 (FORESTS).—*The 10th January 1883.*—Under section 69 of the Burma Forest Act, 1881, the Chief Commissioner directs that in all fire-traced reserves, in lieu of the fines fixed by the 12th section of the Cattle Trespass Act, 1871, the following fines shall be levied for each head of cattle impounded under section 68 of the Burma Forest Act:—

	Rs.	A.	P.
For each elephant	5	0	0
Do. buffalo	1	0	0
Do. horse, mare, gelding, pony, colt, filly, bull, bullock, cow, or heifer	0	8	0
Do. calf, pig, sheep, goat, or kid	0	4	0

No. 11 (FORESTS).—*The 10th January 1883.*—The following rules are made by the Chief Commissioner, British Burma, under the Burma Forest Act, 1881, and shall apply to all districts in British Burma except those of the Arakan Commissionership:—

SECTION I.

RULES RELATING TO RESERVED FORESTS.

1. Within a forest reserve no person shall poison water or set traps or snares, and no person shall hunt, shoot, or fish without a license. Any person who in a reserved forest in contravention of this rule hunts, shoots, fishes, poisons water, or sets traps or snares, is punishable under section 25 of the Act with fine which may extend to Rs. 50, or when the damage resulting from his offence amounts to more than Rs. 25, to double the amount of such damage.

Section 25, clause (*d*).

2. Such license may be granted by the Deputy Commissioner or Forest Officer in whose local jurisdiction such reserve is situated.

Provided that no such license may allow hunting or shooting during the season when forest fires most commonly occur, namely, from the 1st March to the 1st June, nor the hunting or shooting of pheasants, jungle-fowl, partridges, quails, or hares during the breeding season, namely, from the 1st March to the 1st September.

3. Such license shall be in the form No. I given in the appendix to these rules, and a fee of Rs. 10 may be charged for the issue thereof.

Section 26, clause (b).

4. Between the 15th day of January and the 15th day of June no person shall, within two miles of the boundary of a reserve, leave any fire burning, unless he shall have taken the following precautions, namely,—

(a) he shall at least one week before kindling such fire have given notice of his intention so to do to the nearst Forest Officer;

(b) he shall have cleared of inflammable matter a belt of ground of not less than 20 feet in breadth around the place whereon he proposes to kindle such fire;

(c) he shall have kindled such fire at a time when no high wind is blowing in the direction of the reserve.

Any person who in contravention of this rule leaves any fire burning in such manner as to endanger a reserved forest is punishable under section 26 of the Act with imprisonment for a term which may extend to six months or with fine which may extend to Rs. 500, or with both, in addition to such compensation for damage done to the forest as the convicting Court may direct to be paid.

SECTION II.

Rules relating to Reserved and Unreserved Trees and Forest Produce.

Section 36.

5. No person shall cut, mark, lop, girdle, tap, or injure, by fire or otherwise, any reserved tree without a license. Whoever cuts, marks, lops, girdles, taps, or injures, by fire or otherwise, any reserved tree in contravention of section 36 of the Act is punishable with fine which may extend to Rs. 20, or, when the damage resulting from his offence amounts to more than Rs. 10, to double the amount of such damage.

6. The license referred to in Rule 5 if free shall be granted by the Commissioner of the division or Conservator of the circle; and otherwise by the Deputy Commissioner or Forest Officer of the district, or by an officer empowered by the Deputy Commissioner in that behalf.

7. Such license shall be subject to the conditions contained in one or other of the forms Nos. II, III, IV, or V given in the appendix to these rules.

Section 37, clauses (c) and (g).

8. No person shall cut, saw, convert, or remove trees or timber other than reserved trees, with the exception of bamboos, on any land at the disposal of Government, unless—

(a) such trees and timber are cut, sawn, converted, or removed for *bonâ fide* agricultural or domestic purposes within the revenue circle wherein, or within five miles of the place in which such trees and timber are produced, or for the building of bridges, rest-houses, and other works for the public benefit;

(b) such trees and timber are cut, sawn, converted, or removed under and subject to the conditions of a license granted by the Deputy Commissioner or Forest Officer of the district, or by an officer empowered by the Deputy Commissioner in that behalf, in one or other of the forms Nos. VI, VII, VIII, and IX given in the appendix to these rules.

9. No person shall collect or remove wood-oil or resin, the natural produce of any land at the disposal of Government, save under and subject to the conditions of a license granted by the Deputy Commissioner or Forest Officer of the district, or by an officer empowered by the Deputy Commissioner in that behalf, in one or other of the forms X and XI given in the appendix to these rules.

10. Any person infringing Rule 8 or Rule 9 shall be punished with imprisonment for a term which may extend to one month or with fine which may extend to Rs. 500, or with both.

SECTION III.

Rules relating to the Control of Timber in Transit.

Rules Nos. 12, 13, 14, 15, 16, and 17 below apply only to the following areas : —

Pegu Circle.

The area covered at the highest rise by the rivers Irrawaddy, Sittang and Ngawun, Hlaing below Sanywe village, Pegu below Awaing village, Paunglin below Hlègu village, and by all tidal creeks and the sea at high water.

Tenasserim Circle.

The area covered at the highest rise by the rivers Tenasserim, Salween, Beelin below the village of that name, Dôndami below Ihè, Gyaing below the village of that name, Ataran below the mouth of the Winyaw, Tavoy below Sinzeik, and the area covered by all tidal creeks and the sea at high water.

Section 43, clause (*a*).

11. All timber floated down the Salween shall be brought to Kado by the eastern channel.

Section 43, clause (*b*).

12. No person shall collect or move timber without a pass from the Deputy Commissioner or Forest Officer of the district in which the timber is, or by an officer empowered by the Deputy Commissioner or Forest Officer in that behalf, or otherwise than in accordance with the conditions of such pass. Provided that this rule shall not apply to—

(*a*) bamboos or firewood ;
(*b*) timber below 15 feet in length and 3 feet in circumference ;
(*c*) timber marked with the Government sale or revenue-paid hammer.

13. Such pass shall be in the form No. XII given in the appendix to these rules.

Clause (*c*).

14. Such pass shall be produced on the demand of any Forest or Police Officer. Timber for which no pass is produced may be detained by any Forest or Police Officer.

Clause (*d*).

15. The fee payable for such pass shall not exceed the following rates :—

Half an anna per log or piece of the larger kinds of timber ; one quarter anna for yathits.

Clause (*e*).

16. In the case of timber formed into a raft or fastened to the shore, no person not being the owner thereof, or not acting on behalf of such owner or of the Government, shall loosen or set adrift such timber.

Clause (*f*).

17. All timber in transit (in respect of which there is reason to believe that any money is payable to Government, or to which it is desirable for the purposes of the Act to affix a mark) shall be stopped, reported, examined, and marked at the first station established, as hereinafter provided, which it reaches, and thereafter at any other such station at which any Forest Officer requires it to be stopped, reported, examined, or marked. At Kado the report shall be made in writing within seven days of the arrival of the timber, and shall contain full and correct particulars of the timber, its marks, and its position at the station. No timber shall be moved from a station without the permission of the officer in charge.

Clause (*g*).

18. The stations to which timber in transit shall be taken by those in charge of it for examination, or for the realization of any money payable to Government in respect thereof or in order that any mark may be affixed thereto, shall be the following :—

Pegu Forest Circle.

Agency division	Pazundaung. Kemmendine.
Rangoon division	Hlègu. Awaing. Tawlatò.
Prome division	Prome. Yataung. Nyaungbinzeik.
Western division	Myanaung. Henzada. Bassein.
Tharrawaddy division	Tarôkmaw.
Toungoo division	Toungoo.
Shwegyin division	Shwegyin. Myitkyo. Sittang. Kyaikto.

Tenasserim Forest Circle.

SALWEEN DIVISION	Kado. Battery point, Moulmein. Ngante, Ataran river. Zemathwè, Dôndami river. Gyaing, Gyaing river.
SOUTH TENASSERIM DIVISION	Sinzeik, above Tavoy. Mergui.

19. Timber which is the property of Government may be transported across any land, and all acts necessary or convenient for such transport may be done under the authority of an officer in charge of a forest division. If any damage be done to private property by the transport of such timber, compensation shall be paid for such damage.

Clause (*i*).

20. No person shall close up or obstruct the channel of any of the following rivers used for the transit of timber :—

Clause (*j*).

Pegu Forest Circle.

The Sittang river (above Myitkyo) and all its tributaries.
The Pegu river (above Dabein) and all its tributaries.
The Paunglin river and all its tributaries.
The Hlaing river above Tantabin and all its tributaries.
The Nawin river and all its tributaries.
The Bule river ditto.
The Kyini river ditto.
All the western tributaries of the Irrawaddy river from the Mindôn river to the Ngawun creek.
The Ngawun creek and all its tributaries above Bassein.

Tenasserim Forest Circle.

The Salween river.		The Haungdaraw river and all its tributaries	
The Bilin river and all its tributaries.		The Hlaingbwè river	ditto.
The Dôndami river	ditto.	The Thaungyin river	ditto.
The Yunzalin river	ditto.	The Ataran river	ditto.
The Mehthalauk river	ditto.	The Ye river	ditto.
The Pèhlaw river	ditto.	The Tavoy river	dftto.
The Solo river	ditto.	The Tenasserim river	ditto.
The Pa river	ditto.		

21. Any Forest Officer may prevent and the officer in charge of the forest division or sub-division may remove any obstruction in the channel of any of the rivers mentioned in Rule 19, and the cost of such prevention or removal may be recovered from the person or by the sale of any timber causing such obstruction.

Clause (*k*).

22. No person shall convert, cut, burn, or conceal any timber in respect of which any money is payable to Government.

Clause (*l*).

23. No person shall mark or supermark timber, or alter or efface any marks on timber, except under the following conditions, namely,—

(*a*) by or by the authority of an officer in charge of a forest division;
(*b*) the timber is timber specified in clause (*a*), Rule 8;
(*c*) the timber bears a mark either that all money payable to Government thereon has been paid or that it has been imported from Upper Burma;
(*d*) the person is the owner of the timber and the mark is a property-mark used and registered as hereinafter provided.

24. No person shall establish a sawpit without a license from the Deputy Commissioner of the district, or an officer authorised by him in that behalf, within the local limits specified below :—

A distance of 10 miles from any station established under Rule 18.

25. No person shall possess or carry marking hammers or other implements used for marking timber without a license in the form No. XIII given in the appendix to these rules from the officer in charge of the forest division within the local limits specified below :—

The valley of the Salween river.

26. The ownership of all timber imported by river and of all timber extracted for trade purposes when in transit by river or lying at a station established under Rule 18 shall be indicated by a property-

Clause (*m*).

mark. At Kado every fresh mark placed upon timber shall be reported within 24 hours to the officer in charge.

27. If not so marked, such timber shall not be entitled to a pass under Rule 12.

28. All property-marks and all transfers of property-marks shall be registered.

29. Registration shall be effected by the owner at a forest office, provided that the Forest Officer in charge of such office may refuse registration of any mark.

30. If the Forest Officer refuse the registration of any mark, he shall record his reasons in writing and furnish a copy to the applicant for registration, who may appeal against such refusal to the Conservator of the circle.

31. Registration shall hold good from the date thereof until the following 31st day of March and for the next succeeding two years.

32. Fees for registration shall be levied according to the following scale :—

For teak timber—

	Rs.
For each new hammer registered	100
For renewal of registration of a mark before it has lapsed	1
For renewal of a mark that has lapsed	25
For transfer of a mark	10

For other timber—

	Rs.
For each hammer-mark registered or transferred	5
Ditto ditto renewed before it has lapsed	1

Section 44.

33. Any person infringing any of the rules, 12, 14, 16, 17, 20, 22, 23, 24, 25, 26, or 28 shall be punished with imprisonment for a term which may extend to six months or with fine which may extend to Rs. 500, or with both.

SECTION IV.

Rules relating to the Salving, Collection, and Disposal of Drift, Stranded, and other Timber.

Salving.

34. All timber found adrift, beached, stranded, or sunk may be salved by any person.

Section 51, clause (a).

35. The salver shall deliver such timber only to a Forest Officer or other person entitled to collect the same either at the place of salving or at the next station below for which a rate has been fixed under Rule 39.

Collection.

Clause (a).

36. No person other than a Forest Officer shall collect salved timber without a license, nor except in accordance with the conditions of the license.

37. Such license shall be granted by the officer in charge of the forest division, and shall be in the form No. XIV given in the appendix to these rules.

Clause (c).

38. Before delivery of salved timber, the salver shall be entitled to be paid such salvage fees as shall from time to time be fixed by the Chief Commissioner.

Clause (c).

39. The amounts to be paid for the salving, collecting, moving, storing, and disposing of timber before delivery under section 50 of the Act shall be according to the following scale :—

Explanation.—The word "log" means a fairly good piece of timber not less than 18 feet in length and 6 feet in girth ; reduced rates, proportioned to the size and value of the drift, will be payable for inferior timber and short pieces.

Pegu Circle.

Salving rates.

For teak timber salved and stored on the banks in the following rivers and creeks :—

Rangoon Division.

	Rs. A. P.
Panhlaing creek	0 8 0 per log.
Mèzali do.	
Bawleh do.	
Hlaing river above Tantabin	
Pegu river above Magyet, Pazundaung	
Hlaing river below Tantabin	1 0 0 do.
Pegu river below Magyet	
Rangoon river above Monkey point	
Rangoon river below Monkey point	2 0 0 do.

Myanoung and Prome Divisions.

	Rs	A	P	
Irrawaddy river	1	0	0	per log
Bassein do.				
Do do.	2	0	0	do

Irrawaddy River.

For teak timber brought to depôts—

If brought to Prome	2	0	0	per log.
Ditto to Henzada	3	0	0	do.
Ditto to Rangoon	4	0	0	do
Ditto to Bassein				

Sittang Division.

Sittang river at and above Shwegyin	0	8	0	do
Ditto below Shwegyin and above Myitkyo	0	12	0	do
Ditto below Myitkyo	1	0	0	do.

When rafts or portions of rafts abandoned by raftsmen, only one half salvage rate shall be payable

When raftsmen are assisted in securing such rafts or portions of rafts, four annas per log shall be paid, or such sum as is considered sufficient in the judgment of the officer in charge of the forest division

For seashore salvage, according to arrangements sanctioned by the Chief Commissioner

In the case of woods other than teak, half the abovementioned rates.

Payment which Government is entitled to demand in the case of teak: this includes salvage paid to bank-salvers :—

(a) *Sittang river stations.*

	Rs	A	P	
Above and including Sittang	3	8	0	per log
If brought to Rangoon	6	0	0	do

(b) *Irrawaddy river.*

If brought to Prome..	4	0	0	do.
Ditto to Myanaung	5	0	0	do
Ditto to Henzada	6	0	0	do.
Ditto to Yandoon or Pantanaw				
Ditto to Bassein or Rangoon	7	0	0	do

(c) *Hlaing, Pegu, and Paunglin rivers.*

If brought to Government depôt	2	8	9	do.

Below Monkey Point and on the seashore, such rate as the Chief Commissioner may fix, provided that these rates shall in no instance amount to more than half the value of the timber without previous arrangement with the owners

In the case of woods other than teak, half the abovementioned rates.

Salween Division.

1.—Above Kado.

For teak timber—

	Rs	A.	P	
Kyodan	0	4	0	per log
Kamawle	0	8	0	do
Kamanmaung	1	0	0	do
Between Mibôn and Gyochaung	2	0	0	do.
Between Gyochaung and Kado—				
(a) when made over to Government timber collector under Rule 18 ..	2	0	0	do
(b) when brought to Kado depot	3	0	0	do.

In the case of woods other than teak, half the abovementioned rates.

2.—Below Kado

For timber brought to Battery Point Depôt

For teak timber—

	Rs	A	P	
(a) Between Kado and Kyauktan in the southern channel of the Salween..	3	0	0	per log
Between Kyauktan and Kinchaung in the same channel	5	0	0	do
Below Kinchaung in the same channel	10	0	0	do
(b) Between Martaban Forest Department guard house and Martaban point on the western channel	3	0	0	do
Between Martaban point and Kalwi in the same channel .. .	5	0	0	do
Below Kalwi in the same channel	10	0	0	do

In the case of woods other than teak, half the abovementioned rates.

3.—Timber salved and stored on the banks and not brought to a depot

For teak timber—

	Rs	A	P	
In the southern channel between Kado and Kyauktan	1	0	0	do
Below Kyauktan in the same channel .. .	2	0	0	do
In the western channel below the Martaban Forest Department guard house	from Re 1 to Rs 3			do

In the case of woods other than teak, half the abovementioned rates

4.—For rafts or parts of rafts of timber carried down by the Martaban side.

	Rs.	A.	P.	
For teak timber—				
(a) When abandoned by the raftsmen	1	0	0	per log.
(b) When not abandoned by the raftsmen, the officer in charge of the forest division shall award to the parties who assisted in salving the raft or rafts such sums as he considers sufficient, not exceeding ..	0	8	0	do.
In the case of woods other than teak, half the abovementioned rates				

5.—Sea-drift timber.

On the seashore, such rates as may be sanctioned by the Chief Commissioner.

Last clause of section.

40. Any person infringing Rule 35 or 36 shall be punished with imprisonment for a term which may extend to one month or with fine which may extend to Rs. 500, or with both.

SECTION V.

Rules relating to Miscellaneous Matters.

Section 74, clause (a).

41. The powers and duties conferred or imposed by or under the Act on Forest Officers shall be exercised or performed as follows, provided that any Forest Officer may exercise all or any of the powers conferred on a Forest Officer of a lower grade :—

Powers and duties.

Powers and duties.	Officers.
Powers and duties under sections 55, 56, and 78 ..	Foresters in charge of a range.
Powers and duties under section 47	The officers in charge of the central timber depôts at Rangoon and Kado and Sub-Assistant Conservators.
Powers and duties under section 6 .. .. Powers of a Demarcation Officer under the Burma Boundaries Act, 1880 .. .. Powers of a Civil Court to compel the attendance of witnesses and production of documents	Sub-Assistant Conservators.
Powers and duties under sections 26, 27, 32, 36, 38, and 66 Power to issue search-warrants under the Code of Criminal Procedure .. .. Power to hold enquiries into forest offences, and in the course of such enquiries to receive and record evidence	Officers in charge of a forest division.
Powers and duties under sections 24, 46, and 60 ..	Conservators of circles.

Clause (e).

42. Rewards may be granted to all officers in the public service not being gazetted officers and to informers.

43. In case of a conviction of a forest offence, the convicting Magistrate may award to any such officer or informer any portion of the proceeds of the fine or confiscation not exceeding Rs. 100.

44. In the case of the acceptance of a sum of money by way of compensation under the provisions of section 66 of the Act, the Conservator may award to any such officer or informer any portion of such sum not exceeding Rs. 100.

Appendix to the Rules made under the Burma Forest Act, 1881.

FORMS OF LICENSES.

[Obverse.]

No. I.—License to hunt, shoot, or fish within a forest reserve.

Fee, Rs. 10.]

License to hunt, shoot, or fish within the forest reverse of
from the 1st June 188 to the 1st March 188 is granted, under Rule 2 of the Forest Rules, subject to the conditions specified on the reserve, to

(1) Of
(2) Age
(3) Height
(4) Distinguishing marks

The day of 188 .} *(Signature of the officer granting license.)*

[REVERSE.]

Conditions subject to which this license is granted.

(1) Pheasants, jungle-fowl, partridges, quails, and hares shall not be hunted or shot during the breeding season, from the 1st of March to the 1st of September.

(2) The poisoning of water and the setting of traps or snares are prohibited.

Breach of any of the conditions of this license will render the holder liable to forfeiture of the license and to the punishment provided in the Forest Act.

No. II.—Free license for timber of the reserved kinds.

LICENSE to cut, saw, convert, remove, or otherwise utilize tons of timber, being of the reserved kinds, in forest, circle, district, has been granted for months under Rule 7 of the Forest Rules to free of price, to be utilized for under the following conditions :—

(1) that the timber is used for the construction of buildings for the common benefit of the public, such as churches or chapels, schools, kyoungs, zayats, bridges, &c. ;

(2) that the timber is *not* used for temporary buildings, weirs, and works of a similar description ;

(3) that the timber is used near the forest from which it is obtained and at a distance from principal rivers, railways, and other lines of communication where such timber can be procured in the open market ;

(4) that no timber granted under this license is removed or utilized without being marked with the Government sale-hammer at such places as may be entered on the reverse ;

(5) that breach of any of the above conditions will render the holder liable to forfeiture of the license and confiscation of the timber as well as to the punishment provided in the Forest Act.

No. III.—License to cut, mark, lop, girdle, tap, or injure, by fire or otherwise, any teak trees.

LICENSE to cut, mark, lop, girdle, tap, or injure, by fire or otherwise, any teak trees on the area bounded as follows :—

on the north by
on the south by
on the east by
on the west by

is granted under Rule 7 of the Forest Rules to of who holds a grant (or lease) of the said area of the kind prescribed by the Rules under the Burma Land and Revenue Act, 1876, and who has paid Rs. under the following conditions :—

(1) that payment has been made on the correct number of teak trees at the following rates or at such lower rates as may be fixed by the Conservator :—

Girth at 6 feet above the ground.

More than 8 feet.	6 feet to 8 feet	4½ feet to 6 feet	3 feet to 4½ feet.	1½ feet to 3 feet.
Rs.	Rs	Rs.	Rs.	Rs
20	15	10	4	1

(2) that no teak is removed for trade purposes without being marked with the Government sale-hammer ;

(3) that breach of either of the above conditions will render the holder liable to forfeiture of the license and confiscation of the timber as well as to the punishment provided in the Forest Act.

[OBVERSE.]

No. IV.—Trade license for reserved trees other than teak.

LICENSE to cut, saw, convert, and remove or otherwise utilize trees, being trees of the reserved kinds, to the extent of tons, is granted under Rule 7 of the Forest Rules to of in forest, circle, district, for months from date of license, under the following conditions :—

(1) that payments be made at the following rates per ton or at such lower rates as may be fixed by the Conservator :—

Padauk	Rs. 25
Other reserved trees	„ 10

at such places and at such times as may be entered on the reverse ;

(2) that the timber extracted under this license shall not be utilized before it has been paid for in full ;

(3) that the timber extracted under this license, if it has not been paid for in full, shall only be sold together with this license ;

(4) that if part of the timber be sold before full payment of the money due thereon, it shall be covered by a removal-pass granted by an officer in charge of a revenue-station or by a forest ranger, the issue of such pass being entered on the reverse of this license ;

(5) that if timber granted under this license is fully paid for, it shall not be sold without being marked with the Government sale-hammer on return of the license to the officer in charge of a revenue-station ;

(6) that if part of the timber is fully paid for, it shall not be sold without being marked with the Government sale-hammer, the number of logs thus marked being entered on the reverse of the license ;

(7) that breach of any of the above conditions will render the holder liable to forfeiture of the license and confiscation of the timber as well as to the punishment provided in the Forest Act.

License No.
Book No.
Division

(*Signature of officer granting the license.*)

[REVERSE.]

Time of payment
Place or places of payment
Account for tons timber which can be passed under this license.

Paid for and marked.	Amount paid.	Granted removal-pass No.	Amount transferred.	Total tons.	Total amount.	Place of payment or grant of removal-pass and signature of officer.

No. IV (a).—Purchase certificate of timber liable to duty.

CERTIFICATE No. is granted to of the purchase of tons of timber extracted under license No. , book No. , division, is permitted to cut, saw, convert, remove, or otherwise utilize the above timber under the following conditions :—

(1) that payment of Rs. is made before it is utilized or before it passes or before 188 ; that before payment has been made in full none of the timber shall be sold without this pass ; and that, if fully paid for, it shall not be sold without being marked with the Government sale-hammer against return of this certificate;

(2) that breach of any of the above condition will render the holder liable to forfeiture of the license and confiscation of the timber as well as to the punishment provided in the Forest Act and Rules.

[OBVERSE.]

No. V.—Prepaid trade license for reserved trees other than teak.

LICENSE to cut, saw, convert, remove, or otherwise utilize tons of timber, being of the reserved kinds, in forest, circle, district, has been granted for months, under Rule 7 of the Forest Rules, to on prepayment of Rs. (being at the rate of padauk, Rs. 20, other reserved trees, Rs. 8, or at such lower rates as may be fixed by the Conservator), under the following conditions:—

(1) that the timber is not utilized or passed at a Government revenue-station or such place or places as may be entered on the reverse without being marked with the Government sale-hammer ;

(2) that if the timber is sold before it has been possible to affix the Government sale-hammer the license is sold with it ;

(3) that if part of the timber is sold before it has been possible to affix the Government sale-hammer, it shall be covered by purchase certificate in form IV(*a*), which shall be entered in the account kept on the reverse of the license ;

(4) that no timber is cut or converted after the time for which the permit has been granted shall have lapsed ;

(5) that breach of any of the above conditions will render the holder liable to forfeiture of the license and confiscation of the timber, as well as to the punishment provided in the Forest Act.

[REVERSE.]

Places where the timber is to be marked with the Government sale-hammer
Number of tons to be marked

Account.

Marked number of tons	Purchase certificate of number of tons transferred	Total.

No. V(a).—Purchase certificate.

CERTIFICATE No. is granted to of the purchase of tons of timber covered by prepaid license No. , book No. , division . is permitted to remove or otherwise utilize such timber under the conditions—

(1) that it is marked with the Government sale-hammer before it is utilized and passed through a Government revenue-station or the following places :— against return of this certificate ;

(2) that if sold before being thus marked it shall only be sold together with the certificate ;

(3) that breach of either of the above conditions will render the holder liable to forfeiture of the license and confiscation of the timber as well as to the punishment provided in the Forest Act and Rules.

No. VI.—Trade license for unreserved timber.

LICENSE to cut, saw, convert, remove, or otherwise utilize timber of the unreserved kinds from forest, circle, district, is granted under Rule 8 of the Forest Rules to of under the following conditions :—

(1) that except in the case provided for in condition (3) payment is made at the rate of—

	Rs.	A.	P.	
Dugyis or hlwazas	2	0	0	per log.
Yathits	1	0	0	do
100 small posts	10	0	0	
100 poles below 1 foot girth	0	6	0	

at such places as may be entered on the reverse ;

(2) that no such timber shall pass a Government revenue-station or such places as may be entered on the reverse of the license without paying revenue in full ;

(3) that no payment shall be required in respect of trees or timber converted into firewood within the limits of the forest and before passing the station at which revenue would ordinarily be payable ;

(4) that breach of any of the above conditions will render the holder liable to forfeiture of the license and confiscation of the timber as well as to the punishment provided in the Forest Rules.

No. VII.—Prepaid trade license for unreserved timber.

LICENSE to cut, saw, convert, remove, or otherwise utilize the following timber:—

Dugyis or hlwazas
Yathits,
Small posts,
Poles below 1 foot girth of the unreserved kind,

from forest, circle, district, has been granted under Rule 8 of the Forest Rules to of on prepayment of Rs. at the following rates :—

	Rs	A.	P.
Logs, dugyis, or hlwazas	1	8	0
Yathits	0	12	0
100 small posts	7	0	0
100 poles below 1 foot girth	0	4	0

under the following conditions :—

(1) that the timber shall not be sold before it has been marked with the Government sale-hammer at such place or places as may be entered on the reverse of the license ;

(2) that if all timber is marked, the license shall be returned ;

(3) that if a portion of the timber is marked, an account thereof, signed by the marking-officer, shall be kept on the reverse of the license ;

(4) that breach of any of the above conditions will render the holder liable to forfeiture of the license and confiscation of the timber as well as to the punishment provided in the Forest Rules.

No. VIII.—Charcoal license.

LICENSE for making charcoal from unreserved timber has been granted under Rule 8 of the Forest Rules to of for a period of months in forest, circle, district, for workmen on payment of Rs. , at the rate of eight annas per workman per month, under the following conditions :—

(1) that no trees below feet in girth are felled ;

(2) that no trees of reserved kinds or other trees specially mentioned on the reverse are felled ;

(3) that this license is always in possession of a workman employed at the place of working.

Breach of any of the conditions of this license will render the holder liable to forfeiture of the license and to the punishment provided in the Forest Rules.

No. IX.—Cutch license.

LICENSE for making cutch has been granted, under Rule 8 of the Forest Rules, to of in forest, circle

district, for cauldrons on payment of Rs. , being at the rate of Rs. 20 per cauldron for the year under the conditions—

(1) that no trees below 3 feet in circumference shall be felled;
(2) that every cauldron which contains above 12 and below 24 gallons shall be counted as two cauldrons, and so on for every 12 gallons or portions of 12 gallons contained in excess;
(3) that the year shall count from the 1st of June of one year to the 1st of June of the following year, but that at whatever date the license is granted it shall expire on the 1st of June following;
(4) that the license is kept with the workman at the cutch-boiling place.

Breach of any of the conditions of this license will render the holder liable to forfeiture of the license and to the punishment provided in the Forest Rules.

[OBVERSE.]

No. X.—Wood-oil license.

FEE, Rs. 2.

License to tap wood-oil under Rule 9 of the Forest Rules has been granted from the 1st April 188 to the 31st March 188 , subject to the conditions specified on the reverse :—

To
Of
Circle
District
Age
Height
Distinguishing marks

The day of 188 . } (*Signature of the officer granting license.*)

[REVERSE.]

THE conditions subject to which this license is granted are—

(1) that the license is not transferable;
(2) that the license shall always be kept with the holder when collecting wood-oil;
(3) that the year expires on the 31st March following the date on which the license has been granted;
(4) that no kanyin trees less than 7 feet 6 inches in girth shall be tapped;
(5) that kanyin trees between 7 feet 6 inches and 9 feet in girth shall be tapped in one place only, from 9 feet to 10 feet 6 inches in two places only, from 10 feet 6 inches upwards in three places only in one season;
(6) that no in or thitsee trees below 3 feet in girth be tapped.

Breach of any of the conditions of this license will render the holder liable to forfeiture of the license and to the punishment provided in the Forest Rules.

[OBVERSE.]

No. XI.—Resin license.

FEE, Rs. 2.

License to collect resin under Rule 9 of the Forest Rules has been granted from the 1st April 188 to 31st March 188 , subject to the conditions specified on the reverse :—

To
Of
Circle
District
Age
Height
Distinguishing marks.

The day of 188 . } (*Signature of the officer granting license.*)

[REVERSE.]

THE conditions subject to which this license is granted are—

(1) that the license is not transferable;
(2) that the license shall always be kept with the holder when collecting resin;
(3) that the year expires on the 31st March following the date on which the license has been granted.

Breach of any of the conditions of this license will render the holder liable to forfeiture of the license and to the punishment provided in the Forest Rules.

No. XII (in duplicate).

PASS to collect or move timber under Rule 12 has been granted to—

(1) Owner (in whose name the marks have been registered, or agent, or head raftsman)
(2) Place of destination
(3) Description of timber
(4) Marks
(5) Number of logs or pieces
(6) Place at which the pass is to be presented
(7) Amount paid for this pass
(8) Time at which timber may be moved

under the condition that this pass is presented or delivered at such place or places as may be entered below.

Breach of this condition will render the owner liable to forfeiture of the pass and to the punishment provided in the Forest Rules.

The day of 188 . } *(Signature of the officer granting pass).*

No. XIII (in duplicate).

LICENSE to possess and carry marking-hammers under Rule 25.

(1) Name
(2) Resident of

or his accredited agent is permitted to have in his possession and to carry within the undermentioned limits the marking-hammers or instruments bearing the following impressions:—

and may use them within the following limits:—

Time for which permission is granted

The day of 188 . } *(Signature of the officer granting pass.)*

No. XIV.

LICENSE to collect drift timber under Rule 36 has been granted to , of who is permitted to pay bank salvage and collect the logs bearing the marks entered below within the following limits, from the 188 to the 188 , under the following conditions:—

(1) that bank salvage be paid at the rate fixed by the Chief Commissioner ,
(2) that no timber bearing marks other than those entered in the license shall be collected;
(3) that only the person in whose name the license is issued shall collect timber under this license, and that at the time of collection the license shall be in his actual possession;
(4) that the timber be brought to, and reported at, such places as may be entered on the reverse.

Breach of any of the conditions of this license will render the holder liable to forfeiture of the license and to the punishment provided in the Forest Rules.

No. 12 (FORESTS).—*The 10th January 1883.*—The following Rules are made by the Chief Commissioner, British Burma, under the Burma Forest Act, 1881, and shall apply to the districts of the Arakan Commissionership only :—

Section 86.

1. No person shall cut, mark, lop, girdle, tap, or injure, by fire or otherwise, any reserved tree without a license. Whoever cuts, marks, lops, girdles, taps, or injures, by fire or otherwise, any reserved tree in contravention of section 86 of the Act is punishable with fine which may extend to Rs. 20, or, when the damage resulting from his offence amounts to more than Rs. 10, to double the amount of such damage.

2. The license referred to in Rule 1 shall be granted by the Deputy Commissioner, or by an officer empowered by the Deputy Commissioner in that behalf.

3. Such license shall be subject to the conditions contained in one or other of the forms I and II given in the appendix to these rules.

Section 74, clause (*a*).

4. The powers and duties conferred or imposed by or under the Act on Forest Officers shall be exercised or performed as follows :—

Powers and duties.	Officers.
Powers and duties under section 78	Deputy Commissioners and Sub-divisional and Township Officers.
Powers and duties under sections 36 and 38	Deputy Commissioners and Sub-divisional Officers.
Powers and duties under sections 60 and 66	Deputy Commissioners.

Section 74, clause (*c*).

5. Rewards may be granted to all officers in the public service not being gazetted officers and to informers.

6. In case of a conviction of a forest offence, the convicting Magistrates may award to any such officer or informer any portion of the proceeds of the fine or confiscation not exceeding Rs. 100.

7. In the case of the acceptance of a sum of money by way of compensation under the provisions of section 66 of the Act, the Conservator may award to any such officer or informer any portion of such sum not exceeding Rs. 100.

APPENDIX.

FORMS OF LICENSES.

No. 1.—Free license for timber of the reserved kinds.

LICENSE to cut, saw, convert, remove, or otherwise utilize tons of timber, being of the reserved kinds, in forest, circle, district, has been granted for months under Rule 3 of the Arakan Forest Rules to free of price, to be utilized for under the following conditions :—

(1) that the timber is used for the construction of buildings for the common benefit of the public, such as churches or chapels, schools, kyoungs, zayats, bridges, &c.;

(2) that the timber is *not* used for temporary buildings, weirs, and works of a similar description;

(3) that the timber is used near the forest from which it is obtained and at a distance from principal rivers, railways, and other lines of communication where such timber can be procured in the open market;

(4) that this license does not extend to any tree having a less girth than feet at 6 feet from the ground;

(5) that breach of any of the above conditions will render the holder liable to forfeiture of the license and confiscation of the timber as well as to the punishment provided in the Forest Act.

No. II.—Trade license for timber of the reserved kinds.

LICENSE to cut, saw, convert and remove, or otherwise utilize trees, being trees of the reserved kinds, to the extent of tons, is granted under Rule 3 of the Arakan Forest Rules to of in forest. circle, district, for months from date of license, under the following conditions :—

(1) that payments be made to the Deputy Commissioner at the rate of Rs. 3 per ton if prepaid, or Rs. 5 per ton if paid in arrears ;

(2) that the timber extracted under this license shall not be utilized or sold before it has been paid for in full;

(3) that if timber granted under this license is fully paid for, it shall not be exported from the district without being marked with the Government sale-hammer on return of the license to the Deputy Commissioner or other officer empowered under Rule 2 ;

(4) that breach of any of the conditions above will render the holder liable to forfeiture of the license and confiscation of the timber as well as to the punishment provided in the Forest Act.

License No.
Book No.
Division.

(*Signature of officer granting license.*)

DEPARTMENTAL DIRECTIONS FOR THE GUIDANCE OF FOREST OFFICERS AND FOR THE INFORMATION OF THE PUBLIC.

Encamping in a reserve restricted.

1. All persons travelling on roads passing through or along the boundary of any forest reserve shall camp only at such places as may be cleared and set apart for the purpose of camping-grounds by the Forest Officer, who shall publish a list of such grounds in the vicinity of the reserve. Camping at other localities than those so set apart is forbidden. All persons camping shall light any fires they may make for cooking or other purposes in such a way as not to endanger the forest reserve or the buildings or property on the camping-ground, and they shall extinguish all such fires before leaving the camping-ground.

Carriage of torches through reserve prohibited.

2. The carriage of burning-wood, firebrands, or uncovered torches, lighted cheroots, and pipes through or along the boundary of any reserved forest is prohibited during the months of February to May inclusive.

Government timber sales.

3. The disposal of Government timber shall be as follows :—

(*a*) By public sale. At such sales one portion of the payment, not less than 20 per cent. on the amount, shall be made on the day of sale, either in cash, Government paper, or approved securities, and the balance within a term not exceeding three months after the day of sale. No timber shall be delivered before payment in full shall have been received, but the timber shall be at the risk of the purchaser from the moment it is knocked down.

(*b*) By private sale on tender approved of by the Conservator of Forests or the Chief Forest Officer at the station or in the division where the sale is held.

Private sales shall not be effected at rates below the average rates realized at the public sales of the preceding year unless by special order from the Conservator of Forests.

No timber shall be delivered on account of any sale unless and until the full amount of the purchase-money is paid.

(*c*) By conditional sale, with the approval of the Conservator of Forests, of trees or timber standing or lying in the forest. Such trees and timber shall remain the property of Government until the full amount of purchase-money is adjusted. The rights of the purchaser under the sale shall hold good for such period as may be mentioned in the notice or order regarding the sale. Trees and timber not brought out of the forest within the time fixed whether paid for or not shall revert to Government.

Copies of registered marks to be kept at different offices.

4. Property-marks for timber imported by the Salween and its tributaries shall be registered at the Kado forest office ; for timber imported by the Irrawaddy at the Prome office, copies being kept at the Myanaung and Rangoon agency offices ; for timber imported by the Sittang at the Toungoo forest office, copies being kept at the Shwegyin and Rangoon

agency offices; and in all other cases at the head-quarters of the division to which the control of the river by which the timber is conveyed pertains, copies being sent to the head-quarters of the division to which the timber will be ultimately taken. Upon any new mark being registered on payment of a fee of Rs. 100 a copy of the mark shall, as soon as practicable, be cut on wood of a fitting size for reproduction if necessary on any notices which may be published relating thereto. No extra fee beyond the Rs. 100 paid for registering the mark shall be charged for preparing such stamp.

5. Hammer-marks used by Government contractors shall be regarded as Government property-marks and their registration shall be free.

6. When all money due to Government in respect of timber has been paid in full, the timber shall be marked with the Government hammer indicating such payment. All foreign timber shall be marked at the frontier station with an import hammer-mark.

Deposit of waif timber.

7. Drift and waif timber which has been collected by order of the officer in charge of the forest division shall in all cases be taken to one of the timber-stations notified under Rule 18 of the Forest Rules and there detained till its disposal is determined. In the case of timber carried down to the seashore beyond control, the Conservator of Forests may direct the local sale of such timber after it has been salved.

Collecting licenses restricted on certain rivers.

8. Collecting licenses to owners will not as a rule be granted below Prome on the Irrawaddy, below Toungoo on the Sittang, below the mouth of the Gyo stream on the Salween, below the mouth of the Winyaw stream on the Ataran. Collection below these points shall be arranged by the Forest Department, and the timber collected shall be treated as drift timber.

On the Salween river, at the season of the year when the collecting of timber is effected by the aid of ropes stretched across the river, persons may collect their own timber behind the ropes without license.

Publication of lists of drift timber

9. At the stations of Rangoon, Prome, Toungoo, and Moulmein, and at such other stations as the Conservator of Forests may direct, notices shall be published on the last day of every month stating the number and description of pieces of drift timber brought into the station during the month or collected on or near the seashore.

Claims to drift timber

10. All claims to timber notified under the last preceding direction shall be submitted, personally or by duly authorized agents, with full particulars of the timber claimed and the marks it bears.

Liability for salvage and other dues.

11. Timber awarded to claimants shall not be delivered until redeemed by payment of all salvage-money at the rates prescribed in Rule 39 of the Forest Rules in addition to all other money payable or other charges which may have been incurred on account thereof.

Such timber, if not removed from the stations notified under Rule 18 within one month after redemption, shall be liable to a storage rate of two annas per log for a month or any part of a month.

Directions for the management of Kado timber-station.

12. The land forming the Kado timber-station shall be demarcated and a plan thereof shall be kept at the Kado office, and the station so formed shall be in charge of the officer in charge of the Salween division.

13. Within the station no rights of occupancy shall be granted by the officer in charge of the Salween division except as hereinafter mentioned.

14. The portion of the station bordering the river and creeks therein shall be divided into as many wharves as to the officer in charge of the Salween division seems advisable. Such wharves shall be shown on the station plan separately numbered, and on each wharf so formed and numbered a post and board shall be erected showing in English and Burmese numerals the number of the wharf.

15. The wharves shall be either public or private, and each occupied wharf shall be in charge of a registered watchman. Such registered watchman shall keep a book in which shall be entered daily particulars of all timber arriving at, and despatched from, the wharf under his charge (*see* form I attached to these directions).

16. At the public wharves wharfage shall be charged at such rate and in such manner as to the officer in charge of the Salween division seems right; and at such wharves importers of timber shall drag and place their timber in such positions as the officer in charge of the Kado sub-division directs.

17. Private wharves may be allotted to timber traders by the officer in charge of the Salween division on the following conditions and on such other conditions as to the said officer may seem right, namely,—

(*a*) that the wharf shall be used for the storage of timber only;

(*b*) that the term of occupancy shall not exceed one year;

(*c*) that all timber stored at the wharf shall be secured and kept in safety by the importer thereof, no responsibility in respect thereto being undertaken by the officer in charge of the Salween division;

(*d*) that the occupant of the wharf shall pay the watchman in charge of the wharf at a rate to be fixed by the said officer;

(*e*) that the said watchman, although paid by the occupant, shall be under the complete control of, and shall be considered to be the servant of, the said officer and not of the occupant, that the said officer shall have the right to refuse his consent to the appointment of any watchman not approved by him and the right to dismiss any watchman after appointment, and that the watchman's name shall be registered;

(*f*) that the occupant shall maintain the board and post showing the number of the wharf at his own expense in good condition;

(*g*) that if the occupant breaks any of the conditions on which he is allowed to occupy the wharf, the license to occupy shall at once cease and determine, and on such determination all timber stored on the wharf shall become liable for wharfage at the rate laid down by the said officer for public wharves (*see* form II attached to these directions).

18. At the upper and lower limits of the station there shall be placed guards, and it shall be the duty of such guards to count every log or piece of timber that enters and leaves the station respectively, and to keep a book in which the number of logs or pieces so coming in and going out is entered daily.

19. No timber shall be brought into the station or taken out thereof nor moved within the station at any time between the hours of sunset and sunrise, unless the permission of the officer in charge of the Kado sub-division has been first obtained in writing.

20. All timber brought down the Salween river shall be placed on arrival at the station in charge of the officer in charge of the Salween division.

21. Timber arriving at the station shall be at once taken to a wharf and delivered to the registered watchman in charge of the wharf.

22. The watchman in charge of a wharf shall on receiving the timber make a receipt in triplicate for the same, one portion being kept by himself, a second being sent to the Kado office, and the third being given to the person in charge of the timber (*see* form III attached to these directions).

23. The importer of the timber or his agent shall, within seven days after the timber has been delivered to the said watchman, report his arrival at the station office, and to such report shall be attached the receipt of the watchman (*see* form IV attached to these directions).

24. A register of arrival-reports shall be kept at the Kado office, and in such register a separate serial number shall be given to each log or piece of timber entered in each arrival-report (*see* form V attached to these directions).

25. Each log or piece of timber shall be marked with the number by which it is distinguished in the register of arrival-reports.

26. The arrival-reports shall be open to the inspection of the public at the Kado office for at least seven days after their entry in the register, and copies of the arrival-reports shall be daily forwarded to the Moulmein forest office and shall there also be open to the inspection of the public for at least seven days. The officer in charge of the Salween division may on application and after enquiry extend the period during which any particular arrival-report shall remain open to inspection.

27. After the expiry of the period during which the arrival-report has been ordered to remain open to inspection, a warrant or teinsa for the timber covered by the arrival-report shall be granted to the importer of the timber signed by the officer in charge of the Salween division or of the Kado sub-division and sealed with the seal of the forest office (*see* form VI attached to these directions).

28. Provided that no such warrant or teinsa shall be granted to the importer if an order of a competent Court has been received at the Kado office prohibiting the delivery to the importer of the goods covered by the arrival-report.

29. After the issue of the warrant or teinsa the register of arrival-reports shall be signed by the officer in charge of the Salween division or of the Kado sub-division in the column left for the purpose opposite to the entries of the timber for which the warrant or teinsa is granted.

30. An extract from the register of arrival-reports may be granted on application to the forest office at Kado and on payment of a fee of eight annas.

31. After all money payable to Government in respect of any timber lying at the Kado station has been paid the timber shall be marked as passed.

32. After the pass hammer-mark has been applied to any timber, a pass to remove the timber shall be granted to the importer or to any person to whom he has transferred the

warrant or teinsa on delivering up the warrant or teinsa (*see* form VII attached to these directions).

33. No person shall remove, or attempt to remove, any timber from the Kado timber-station unless it is covered by a pass.

34. The pass shall be delivered up to the guard at the exit of the station after a receipt thereon for the timber covered by the pass has been signed by the person in charge of the timber, and on such delivery of the receipt the exit guard shall allow the timber to pass out.

35. Persons who wish to transact their business at the Kado station through agents shall register the names of their agents at the forest office, and shall notify for entry in the register the extent of the authority of such agents; otherwise the production of an agent's written authority shall be required in each transaction.

FORM No. I.—KADO TIMBER-STATION.

Watchman's daily arrival and despatch book, wharf No.

Date of arrival of timber.	Name of the person who delivered the timber.	Number of logs.	Marks.	Receipt number.	Date of removal to Moulmein.

FORM No. II.—KADO TIMBER-STATION.

License for occupation of wharf No.

Eight anna stamp.

THE officer in charge of the Salween division hereby agrees with timber-trader, residing at *(or carrying on business by his agent residing at*), that the said may, from the day of 18 to the 31st day of March 18 , use and occupy the wharf marked No. on the Kado station plan on the terms and conditions following, subject to immediate forfeiture of such right of use and occupation on breach of any of such terms and conditions.

Terms and conditions.

1. The wharf shall be used and occupied for the storage of timber only, provided that such use and occupation shall be taken to include the erection and maintenance of any houses or buildings necessary or convenient for such purpose.

2. All timber stored at the wharf shall be secured and kept in safety by the importer thereof, no responsibility in respect thereto being undertaken by the officer in charge of the Salween division.

3. A watchman shall be placed in charge of the wharf, who shall be paid at the following rate :—

4. Such watchman, although paid by the occupant, shall be under the complete control of, and shall be considered to be the servant of, the officer in charge of the Salween division and not of the occupant. The said officer shall have the right to refuse his consent to the appointment of any watchman not approved by him and the right to dismiss any watchman after appointment, and the watchman's name shall be registered.

5. The occupant shall maintain the board and post showing the number of the wharf at his own expense in good condition.

6. The occupant shall, if any of these terms and conditions be broken, pay wharfage for all timber lying at the wharf at the rate laid down by the officer in charge of the Salween division for public wharves.

FORM No. III.—Kado Timber-station.

Wharf No. *Receipt No.*

Number of rafts.	Number of logs.	Description of hammer-marks.	Watchman's signature.

Wharf No. *Receipt No.*

Number of rafts.	Number of logs.	Description of hammer-marks.	Watchman's signature.

Wharf No. *Receipt No.*

Number of rafts.	Number of logs.	Description of hammer-marks.	Watchman's signature.

FORM No. IV.—Kado Timber-station.

Report of the arrival of timber.—No.

Description of timber.				Tonnage.	Name of forest.	Name of district.	Timber marks.	Register number of property-mark certificate.	Register number of power-of-attorney.	Wharf No.	Watchman's receipt No.	Salving permit No.	Remarks.
Full-sized logs.	Under-sized logs.	Stem-pieces.	Crooks.										

(Sd.)

The 188 . *or* *by his attorney.*

We, the undersigned depot peons, beg to report that, after careful examination, we have found the number of logs and the marks thereon to agree with those mentioned in this report and have numbered the same.

The 188 . *Depôt Peons.*

Form No. V.—Kado Timber-station.

Register of timber arrival-reports.

No.	Name of person claiming to be the owner.	Agent's name.	Register No.		Full-sized logs.	Under-sized logs.	Ship-crooks.	Boat-crooks.	Stem-pieces.	Where produced.	Arrival-report number.	Property-mark.	Number of wharf.	No. of watchman's receipt.	Date of watchman's receipt.	Signature of officer granting warrant or teinsa.	Assessed value per ton or per log.	Rate of duty.	Total amount of duty.	Date and number of pass.	Date of return of pass.	Remarks.
			From	To																		

Four-anna stamp.

FORM No. VI.—KADO TIMBER-STATION.

Warrant or teinsa No.

I DO hereby certify that has reported and registered the arrival at the Kado timber-station of the undermentioned logs of timber as his own (or as 's) property, which goods, on production and demand, and after payment of all wharfage, incidental charges, and Government demands due and payable thereon, I engage to deliver to the said or to his order.

Registered mark.	Registered No.	Where lying.

Wharfage, incidental charges, and Government demands payable, Rs.

The day of 188 . (Signed)

L. S.

Officer in charge of Salween Division, or Officer in charge of Kado Sub-division.

[OBVERSE.]

FORM No. VII.—KADO TIMBER-STATION.

Pass to remove duty-paid timber.

PASS No.

is permitted to remove the following timber from wharf No. on which all Government demands have been paid.

Number of logs
Stamped

KADO OFFICE :
The day of 188 . *Officer in charge of the Kado Sub-division.*

N.B.—This document must be given, after the receipt on the reverse has been signed, to the exit guard, who will allow the timber to pass and return the pass to this office.

[REVERSE.]

I HAVE received and removed from the Kado timber-station the property mentioned in this pass.

RANGOON :
The 188 . (*Signature of raftsman*).

ANNUAL FORM No. 49 [PRESCRIBED].—*Area of reserved forests for 1882-83.*

Division or range.	Civil district or territory.	Name of forest.	Area on 1st April 1882. Acres.	Area on 1st April 1882. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other heads. Acres.	Area on 1st March 1883. Acres.	Area on 1st March 1883. Equivalent in square miles.	No. and date of notification of addition or transfer.	Remarks.
West Salween	Salween	Wamu stream	1,920	3	...	...	1,920	3		
		Sinzwè	8,960	14	...	...	8,960	14		
		Kahilu	9,600	15	...	...	9,600	15		
		Mènanwè	3,840	6	...	...	3,840	6		
		Mèwaing	7,360	12	...	...	7,360	12		
		Upper Mèthalauk	8,960	14	...	...	8,960	14		
		Lower do.	3,840	6	...	...	3,840	6		
	Shwegyin	Bilakatkyi	8,320	13	...	...	8,320	13		
		Ônkangyi	8,320	13		...	8,320	13		
	Amherst	Tagalaung	5,120	8	...	...	5,120	8		
	Salween	Pa stream	..	...	25,600	...	25,600	40	No. 49F., dated 1st June 1882.	
East Salween	Amherst	Kamawkala	5,760	9	...	...	5,760	9		
		East Mèpalè	38,400	60	...	...	38,400	60		
		Mèpalè	12,800	20	...	...	12,800	20		
		Mèkanè	19,200	30	...	...	19,200	30		
		Kyaukket	12,160	19	...	...	12,160	19		
		Mègala	6,400	10	...	...	6,400	10		
		Winsaw	6,400	10	...	...	6,400	10		
		Mithaway	12,160	19	...	...	12,160	19		
		South Myawadi	150	...	...	...	150	...		
		Ônkaraing	...	...	33,920	...	33,920	53	No. 37. dated 21st April 1882.	
		Gawlè	...	...	37,120	...	37,120	58	No. 58. dated 27th June 1882.	
		Balèdo	...		1,600	...	1,600	2	No. 95F., dated 21st April 1882.	
Ataran		Dali	7,680	12	...	...	7,680	12		
		Pakabo	20,480	32	...	...	20,480	32		
		Natchaung	5,760	9	..	...	5,760	9		
		Gôngyi	27,520	43	...	...	27,520	43		
		Mau	8,960	14	...	.	8,960	14		
		Mègwa	12,160	19	...	..	12,160	19		
		Thingannyinaung	5,760	9	...	...	5,760	9		
		Kyunchaung	10,880	17	..	..	10,880	17		
		TOTAL TENASSERIM CIRCLE	278,870	436	98,240	...	377,110	589		
Myedè range	Thayetmyo district	Tindaw	2,880	5	...	.	2,880	5		
		Sasuwa	4,800	7	...	...	4,800	7		
		Thayetmyo East Yoma	81,920	128	...	...	81,920	128		
Kama range	Ditto	Saingdo	1,216	1	...	...	1,216	1		
		Thabala	6,080	9	...	...	6,080	9		
		Mindôn Yoma	166,400	260	...	...	166,400	260		
		Ngawet	3,200	5	...	...	3,200	5		
		Total Thayetmyo district	266,496	415	...	...	266,496	415		

NAWIN RANGE.	Prome district	Thitkat and Ayodaung ...	2,944	5	..	...	2,944	5	
		Thayetchaung and Nyaungbindet	4,864	8	...	...	4,864	8	
		Kywemido	2,442	4	..		2,442	4	
		Nabebyu	3,840	6		...	3,840	6	
		Shwelaung and Pwegin ...	13,120	21		..	13,120	21	
		Gwegyo	6,720	10	..	...	6,720	10	
		Chaungzauk	9,408	15	...	...	9,408	15	
		Ngalusan	700		...	...	700		
		Shwekyundaw	256	2	...	...	256	2	
		Prome plantation ...	73		...		73		
		Prome East Yoma ...	97,600	152	...	...	97,600	152	Includes Karen area 43 square miles.
		Tônye fuel reserve ...	12,224	19	..	...	12,224	19	
		Pauktaw do.	4,672	7	...	.	4,672	7	
		Sinmizwe do. . ..	6,400	10	...	..	6,400	10	
		Total ...	165,263	259	...	.	165,263	259	
		Total Prome ...	431,759	674	.		431,759	674	
		Karen areas .	27,520	43	.		27,520	43	
		Total area free of taungya privileges ...	404,239	631	.		404,239	631	
SHWELE RANGE	Ditto	Shwele Yoma	33,600	52	...	.	33,600	52	Includes Karen area of 12 squares miles.
		Dawle	1,800	3	...		1,800	3	
		Padetmyaung	4,500	7	...	..	4,500	7	
		Kyaukkyitaung	2,600	4	..	.	2,600	4	
		Bwet	2,900	5	...	...	2,900	5	
		Gwedauk kwin . ..	10,200	16	.	..	10,200	16	
		Kyibyu	2,200	3	...	.	2,200	3	
		Kadinzauk & Kadinthônzin	3,500	6	..	...	3,500	6	
		Thabaung . .	2,200	3	..	.	2,200	3	
BAWBIN RANGE	Tharrawaddy district	Taungnyo Yoma ...	88,320	138	...	...	88,320	138	Includes Karen area of 36 square miles.
		Upper Padinbin ..	600	1	..	...	600	1	
		Lower do	200	.	...	...	200	...	
		Tapan	4,260	7	..	...	4,260	7	
		Nyanlè	5,800	9	..	..	5,800	9	
		Kanni	800	1	.	...	800	1	
		Pazingye	1,300	2	...	...	1,300	2	
		Taungnyomyo	4,780	8	.	...	4,780	8	
		Minbu Bawbin	83,200	130	..	...	83,200	130	Includes Karen area of 25 square miles.
		Upper Payagyi	1,000	2	..		1,000	2	
		Lower do	600	1	...		600	1	
		Thitcho	1,400	2	.	.	1,400	2	
		Kangyi	3,800	6		.	3,800	6	
		Gwedauksan	1,300	2		...	1,300	2	
		Chaungwa	700	1	.	...	700	1	
		Myodwin	38	...	...	...	38	..	
		Chaungzauk (fuel) ...	3,700	6	..	.	3,700	6	
		Carried forward ..	265,298	415	...	...	265,298	415	

ANNUAL FORM No. 49 (PRESCRIBED).—*Area of reserved forests for 1882-83*—(concluded).

Division or range.	Civil district or territory.	Name of forest.	Area on 1st April 1882.		Added during the year.	Excluded or transferred to other heads.	Area on 31st March 1883.		No. and date of notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
		Brought forward ...	265,298	415	...	...	265,298	415		
GAMÔN RANGE	Tharrawaddy district...	Minhla, Gamôn, and Taung	89,600	140	...	...	89,600	140	.....	Includes Karen area of 47 square miles.
		Taukkyan	4,640	7	...	...	4,640	7		
		Thakolan	960	1	...	...	960	1		
		Chaungnagôn (fuel) ...	300	...	...	...	300	...		
		Satpôk (do.) ...	4,700	7	...	...	4,700	7		
		Sitkwin (do.) ...	2,700	4	...	...	2,700	4		
BILIN RANGE	Ditto ...	Môkka and Kadin Bilin ...	90,900	142	...	...	90,900	142	.....	Includes Karen area of 80 square miles.
		Kôn Bilin	12,800	20	...	...	12,800	20		
		Thônezè	44,800	70	...	...	44,800	70	.....	Includes Karen area of 20 square miles.
		Thindawyo (fuel)	6,400	10	...	...	6,400	10		
		Total Tharrawaddy ...	523,098	816	...	...	523,098	816		
		Karen areas ...	108,800	170	...	...	108,800	170		
		Total area free of taungya privileges	414,298	646	...	...	414,298	646		
BANGOON ...	Hanthawaddy ...	Kyetpyugan	1,800	3	...	*860	940	2		
		Kadat	64,000	100	...	...	64,000	100		
		Magayi	12,800	20	...	...	12,800	20		
		Ôkkan	80,000	125	...	...	80,000	125	.....	Includes Karen area of 13 square miles.
		Hlaing Yoma	59,520	93	...	...	59,520	93		
		Upper Zamayi	145,920	228	...	...	145,920	228	.....	Includes Karen area of 88·5 square miles.
		Lower do.	112,000	175	...	...	112,000	175	.....	Includes Karen area of 16·5 square miles.
		Total ...	476,040	744	...	*860	475,180	743		

		Fuel Reserves.							
		Hmawbi	1,700	3	146*	...	1,846	3	
		Kyun	8,600	13	...	...	8,600	13	
		Thitpyat	3,100	5	...	...	3,100	5	
		Thebyu	8,000	13	...	...	8,000	13	
		Total ...	21,400	34	146*	...	21,546	34	
		Total Rangoon ...	497,440	778	146*	860	496,726	777	
		Karen areas ...	76,800	120	...	...	76,800	120	
		Total area free of toungya privileges	420,640	658	146*	860	419,926	657	
TOUNGOO ...	Toungoo ...	Pyôn stream	3,400	5	...	...	3,400	5	
		Yenè	5,800	9	...	...	5,800	9	
		East Swa	17,280	27	...	...	17,280	27	
		Bôndaung	25,600	40	...	...	25,600	40	
		Kabaung	220,800	345	...	...	220,800	345	..... Includes Karen area of 65·5 square miles.
		Kyaukmasin	20,480	32	...	...	20,480	32	
		Saing	64,640	101	...	...	64,640	101	
		Total Toungoo ...	358,000	559	...	...	358,000	559	
		Karen areas ...	41,920	65	...	...	41,920	65	
		Total area free of taungya privileges	316,080	494	...	...	316,080	494	
KYAUKKYI RANGE ...	Shwegyin	Binbyè	6,400	10	...	...	6,400	10	
KYUNDAUNG RANGE ...	Do.	Kyundaung	960	1	...	...	960	1	
		Total Shwegyin ...	7,360	11	...	...	7,360	11	
		TOTAL PEGU CIRCLE ...	1,562,617	2,440	146*	860*	1,561,903	2,439	
		Karen areas ...	255,040	398	...	...	255,040	398	
		GRAND TOTAL BRITISH BURMA	1,841,487	2,876	98,386	860*	1,939,013	3,028	

* Difference between area estimated and that found by survey.

FORM No. 50 [PRESCRIBED].—*Area of teak and other plantations in the Tenasserim Circle for 1882-83.*

Division.	Name of plantation.	On 1st April 1882.		Added during 1882-83.		On 1st March 1883.		Remarks
		Area.	Cost.	Area.	Cost.	Total area.	Total cost.	
		Acs.	Rs.	Acs.	Rs.	Acs.	Rs.	
	Regular plantations.							
ATARAN ...	Thinganyinaung	16	14,993	...	...	16	14,993	
SALWEEN ...	Shwegôn	5	3,787	...	...	5	3,787	
	Kolôn Island	2	3,539	...	..	2	3,539	
	Total ...	23	22,319	...	...	23	22,319	
	Fully stocked taungya plantations.							
WEST SALWEEN ...	Sinzwe	519	2,141	...	61	519	2,202	Exclusive of taxes.
	Wamu	5	49	...	13	5	62	Ditto.
	Kahilu	4	102	...	24	4	126	
	Ônkangyi	36	225	8	42	44	267	
	Bilakatgyi	17	58	4	23	21	81	
	Mènanwè	41	419	...	...	41	419	
	Mèwaing	74	513	15	84	89	597	
ATARAN ...	Dali	39	72	8	17	47	89	
	Kyunchaung	...	100	8	213	8	313	
	Total ...	735	3,679	43	477	778	4,156	
	Indifferently stocked taungya plantations.							
WEST SALWEEN ...	Sinzwe	357	...	..	...	357	...	
	Wamu	8	...	2	...	10	...	
	Kahilu	19	...	...	...	19	...	
	Ônkangyi	8	...	...	...	8	...	
	Bilakatkyi	12	...	2	...	14	...	
	Mènanwè	62	...	...	...	62	...	
	Mèwaing	63	...	...	...	63	...	
ATARAN ...	Dali	16	...	...	.	16	...	
	Kyunchaung	25	...	22	..	47	...	
EAST SALWEEN ...	Mèpalè	.	...	15	10	15	10	
	Total ...	570	..	41	10	611	10	
	GRAND TOTAL ...	1,328	25,998	84	487	1,412	26,485	

FORM No. 50 [PRESCRIBED].—*Area of teak and other plantations in the Pegu Circle for 1882-83.*

Division.	Name of plantation.	On 1st April 1882.		Added during 1882-83.		On 31st March 1883.		Remarks.
		Area.	Cost.	Area.	Cost.	Total area.	Total cost.	
		Acs.	Rs.	Acs.	Rs.	Acs.	Rs.	
PROME ...	Prome plantation	73	9,060	...	49	73	9,109	
RANGOON ...	Kyetpyugan	683	78,070	...	...	683	78,070	
	Magayi	1,511	1,30,175	16	*4,689	1,527	1,34,864	*Includes cost of weeding and removing jungle trees in plantations of 1872 to 1882 and Rs. 60 arrear adjustment of Comptroller-General.
THARRAWADDY ...	Chaungzouk	340	34,727	...	...	340	34,727	
	Kwaymaksing	144	16,053	...	60	144	16,113	
	Myodwin	10	887	.	..	10	887	
	Kanni	65	1,373	...	.	65	1,373	
TOUNGOO ...	Pyunchaung	696	24,469	5	†742	701	25,211	†Includes cost of thinnings.
	Yanè	9	168	...	...	9	168	
ARAKAN ...	Myauktaung	10	1,110	.	‡50	10	1,160	‡This amount is an arrear adjustment by Comptroller-General.
	Total regular plantations ...	3,541	2,96,092	21	5,590	3,562	3,01,682	
	Total taungya plantations ...	*3,151	30,219	608	7,971	3,759	38,190	For details see Form 50A.
	Total cultural operations ...	2,080	15,121	408	9,722	2,488	24,843	
	Grand Total as per AVIII*d* Expenditure ..	8,772	3,41,432	1,037	23,283	9,809	3,64,715	
	ABSTRACT.							
	British Burma							
	Total regular plantations	3,564	3,18,411	21	5,590	3,585	3,24,001	
	Total taungya plantations.	3,886	33,898	651	8,448	4,537	42,345	
	Total cultural operations and indifferently stocked taungya plantations	2,650	15,121	449	9,732	3,099	24,853	
	Grand Total Expenditure under AVIII*d* for British Burma ...	10,100	3,67,430	1,121	23,770	11,221	3,91,200	

N.B.—3,151 acres, shown as total of taungya plantation on 1st April 1882, includes 17 acres outside of Kangyi reserve and planted in 1865.

FORM No. 50A.—*Statement of taungya, teak, and cutch plantations in the Pegu Circle for the year 1882-83.*

Division.	Name of reserve.	Year of formation.	Area on 1st April 1883.	Area planted with teak during 1882-83.	Cost up to 1881-82. Original cost.	Cost up to 1881-82. Maintenance.	Cost during 1882-83. Original cost.	Cost during 1882-83. Maintenance.	Total cost.	Average cost per acre up to 1882-83.	Area on 31st March 1883.
					Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P	Rs A. P.	Rs. A. P	
THARRAWADDY.	Bwet	1875-76 ...	37	.....	.....	.....	.....	.....	.....	..	.....
		1876-77 ...	50	.....	.....	.....	.....	.....	.	.....	.....
		1877-78 ...	44	.....	.....	.....	.....	...	.....	.....	.....
		1878-79 ...	150	.....	.....	.....	.....	.....	.....	.....	.....
		1880-81 ...	19	.....	....	.....	.....	22 0 0	.	.....	.....
	Total ...	.....	300	.....	1,613 0 0	426 0 0	.....	22 0 0	2,061 0 0	6 13 11	300
	Shwele Yoma	1875-76 ...	11	.....	76 0 0	.....	.....	.....	76 0 0	6 14 6	Failure 11
	Nyanlè	1878-79 ...	1	.....	555 0 0	78 0 0	.....	71 0 0	.....	.....	.....
		1879-80 ...	8								
		1880-81 ...	28								
		1881-82 ...	14	.....	.....	.....	.....	26 0 0	.....	.....	.....
		1882-83 ...	.....	20	.....	.....	251 0 0	.....	.....	.....	.....
	Total ...	.....	51	20	555 0 0	78 0 0	251 0 0	97 0 0	981 0 0	13 13 0	71
	Taungmyo Yoma ...	1875-76 ...	15	.....	135 0 0	59 0 0	.....	.....	194 0 0	12 14 11	Failure 15
	Thitcho	1869-70 ...	7	.....	70 0 0	.....	.....	.....	.....	.....	....
		1870-71 ...	8								
	Total ...	.....	15	.....	70 0 0	.....	.....	.....	70 0 0	4 10 8	Unsatisfactory 15
	Gwedauksan	1875-76 ...	11	.....	523 0 0	141 0 0	.....	38 0 0	.....	.....	.....
		1876-77 ...	9								
		1878-79 ...	8								
		1880-81 ...	15								
		1881-82 ...	10	.....	.....	.....	.....	21 0 0	....	.....	.....
		1882-83 ...	.....	11	.....	.....	174 0 0	.....	....	.....	.....
	Total ...	.....	53	11	523 0 0	141 0 0	174 0 0	59 0 0	897 0 0	14 0 3	64
	Bawbin Kyaukpyu ...	1875-76 ...	15	.....	118 0 0	10 0 0	.....	.....	128 0 0	8 8 6	Failure 15
	Bawbin Chaungwa ..	1869-70 ...	17	.....	1,816 0 0	549 0 0	.....	...	.....	.....	*28 acres difference between closing and opening balances of 1880-81, and 1881-82, caused by the omission of this figure in statement for 1880-81.
		1873-74 ...	4								
		1874-75 ...	30								
		1876-77 ...	30								
		1877-78 ...	25								
		1878-79 ...	26								
		1879-80 ...	18								
		1880-81 ...	28*	.....	.....	.....	.....	68 0 0	..	.....	.....
		1881-82 ...	28	.....	.....	.....	.....	55 0 0	..	.....	
	Total ...	.....	206	.....	1,816 0 0	549 0 0	.....	123 0 0	2,488 0 0	12 1 3	206
	Kangyi	1873-79 ...	54	.....	1,577 0 0	649 0 0	.....	141 0 0	.....	.....	In addition to this by correct survey there are 17 acres outside reserves planted in 1865; cost unknown.
		1879-80 ...	66								
		1880-81 ...	58								
		1881-82 ...	14	.....	.....	.....	.....	27 0 0	.....	.....	.....
		1882-83 ...	.....	3	.....	.....	60 0 0	.....	.....	.....	.....
	Total ...	.....	192	3	1,577 0 0	649 0 0	60 0 0	168 0 0	2,454 0 0	12 9 4	195

FORM No. 50A.—*Statement of taungya, teak, and cutch plantations in the Pegu circle for 1882-83*—(continued).

Division.	Name of reserve.	Year of formation.	Area on 1st April 1883.	Area planted with teak during 1882-83.	Cost up to 1881-22. Original cost.	Cost up to 1881-22. Maintenance.	Cost during 1882-83. Original cost.	Cost during 1882-83. Maintenance.	Total cost.	Average cost per acre up to 1882-83.	Area on 31st March 1883
					Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
THARRAWADDY—concluded.	Minhlamyaung	1873-74 ...	22	.....	1,184 0 0	843 0 0	.....	.....	.....	.....	.....
		1874-75 ...	40								
		1875-76 ...	57								
	Total ...	.....	119	.....	1,184 0 0	843 0 0	.....	.....	2,027 0 0	17 0 6	119
	Minhla Môkka	1873-74 ...	23	.....	2,521 0 0	1,014 0 0	.....	.....	.....	.....	.....
		1874-75 ...	41								
		1875-76 ...	66								
		1880-81 ...	38	.....	.....	.....	.....	83 0 0	.....	.....	.....
		1881-82 ...	131	.....	.....	.....	.....	241 0 0	.....	.....	.....
		1882-83 ...	.....	123	.....	.....	1,193 0 0	.....	.....	.....	.....
			.....	.....	.....	.....	44 0 0*	.....	.....	.....	.....
	Total ...	.....	319	123	2,521 0 6	1,014 0 0	1,237 0 0	324 0 0	5,096 0 0	11 8 3	442
	Môkka Bilin	1869-70 ...	10	.....	8,609 0 0	3,206 0 0	.....	.....	.....	.....	.....
		1870-71 ...	12								
		1871-72 ...	27								
		1872-73 ...	160								
		1873-74 ...	157								
		1874-75 ...	29								
		1875-76 ...	155								
		1877-78 ...	96								
		1878-79 ...	102								
		1879-80 ...	86								
		1880-81 ...	136	.....	.....	.....	.....	269 0 0	.....	.....	.....
		1881-82 ...	259	.....	.....	.....	18 0 0	556 0 0	.....	.....	.....
		1882-83 ...	.....	233	.....	.....	2,135 0 0	.....	.....	.....	.....
			.....	.....	.....	.....	22 0 0*	.....	.....	.....	.....
	Total ...	.....	1,229	233	8,609 0 0	3,206 0 0	2,175 0 0	825 0 0	14,815 0 0	10 2 1	1,462
	Kadin Bilin	1875-76 ...	4	.....	23 0 0	17 0 0	.....	.....	40 0 0	10 0 0	4
	Thônzè Kôn Bilin ...	1875-76 ...	19	.....	1,532 0 0	621 0 0	.....	.....	.....	.....	.....
		1877-78 ...	38								
		1878-79 ...	34								
		1879-80 ...	41								
		1880-81 ...	95	.....	.....	.....	.....	193 0 0	.....	.....	.....
		1881-82 ..	77	.....	.....	.....	33 0 0	117 0 0	.....	.....	.....
		1882-83 ...	.....	52	.....	.....	565 0 0	.....	.....	.....	.....
			.....	.....	.....	.....	24 0 0*	.....	.....	.....	.....
	Total ...	.....	304	52	1,532 0 0	621 0 0	622 0 0	250 0 0	2,025 0 0	8 7 11	356
	TOTAL THARRAWADDY ...	.....	2,833	442	20,352 0 0	7,613 0 0	4,519 0 0	1,868 0 0	34,352 0 0	10 7 10	3,275
PROME ...	Chaungzauk	1879-80 ...	67	.....	1,335 0 0	919 0 0	.....	.....	2,254 0 0	.....	.....
		1880-81 ...	132								
		1881-82 ...	102								
		1882-83 ...	.....	98	.....	.....	1,158 0 0	.....	1,158 0 0	.....	.....
			.....	301	98	1,335 0 0	919 0 0	1,158 0 0	.....	3,412 0 0	8 8 10	399
RANGOON ...	Dawè	1882-83 ...	.....	30	.....	.....	76 0 0	.....	76 0 0	2 8 6	30
	Total Teak Toungyas ...	.....	3,134	570	21,687 0 0	8,532 0 0	5,753 0 0	1,868 0 0	37,840 0 0	10 3 5	3,704
PROME ...	Chaungzauk cutch ...	1882-83 ...	.....	38	.....	.....	350 0 0	.....	350 0 0	.....	38
	Total Taungya Plantations ...	.....	3,134†	608	21,687 0 0	8,532 0 0	6,103 0 0	1,868 0 0	38,190 0 0	.....	3,742

* Extension to be planted in 1883-84. | † *Vide* Note at foot of Form No. 50.

FORM No. 50A.—*Statement of taungya, teak, and cutch plantations in the Pegu Circle for 1882-83*—(concluded).

Division.	Name of reserve.	Cultural Operations. On 1st April 1882. Area.	Cost.	Added in 1882-83. Area.	Cost.	On 31st March 1883. Total area.	Total cost.	Remarks.
			Rs. A. P.		Rs. A. P.		Rs. A. P.	
	Bwet	450	3,566 0 0	150	1,907 0 0	600	5,473 0 0	Acreage planted up successfully where bamboos had flowered
	Nyanlè	280	2,535 0 0	250	2,677 0 0	530	5,212 0 0	
	Kangyi	350	1,723 0 0	.....	219 0 0	350	1,942 0 0	Cutting free young teak and girdling trees which overshadowed them.
	Mókka Bilin	1,000	5,550 0 0	8	803 0 0	1,008	6,353 0 0	Potash experiments by burning 8 acres of bamboos and planting up with teak which was a success, but potash was unsaleable.
	Tharrawaddy forest garden	...	1,747 0 0	.....	1,420 0 0	.....	3,167 0 0	Experiments and maintenance.
	Kyaukdagaung	.....	.....	.....	725 0 0	.....	725 0 0	Cutch experiments very successful: Rs. 66 of this sum will be apportioned in 1883-84.
	Gwedauk kwin	.....	.....	.....	114 0 0	..	114 0 0	Cutch experiments unsuccessful.
	Teak seeds	.....	...	.....	1,574 0 0	..	1,574 0 0	This sum will be apportioned in 1883-84.
	Total ...	2,080	15,121 0 0	408	9,439 0 0	2,488	24,560 0 0	
PROME ...	Chaungzauk	....	.....	.....	24 0 0	.....	24 0 0	Cost of *Morus Multicaulis* experiments by cuttings from Director of Agriculture.
TOUNGOO ...	Pyunchaung	.....	.....	.....	24 0 0	.....	24 0 0	Cost of shaw and letpan experiments.
		.....	.....	.....	36 0 0	.....	36 0 0	Cutting creepers and freeing young teak.
		.....	.....	.....	86 0 0	.....	86 0 0	Removing teak saplings from reserve.
		.....	.....	.....	113 0 0	.....	113 0 0	Clearing evergreen plants on trace.
	Total ...	.....	.....	.....	259 0 0	.....	259 0 0	
	Total cultural operations ...	2,080	15,121 0 0	408	9,722 0 0	2,488	24,843 0 0	
	Total expended on taungya and cultural operations ...	.....	.....	.....	17,693 0 0	..	...	

N. B.—In 1881-82 the total of opening columns of cost differed from those of 1880-81. This was caused by a careful revision of the form by Tharrawaddy office, certain items on account of fire tracing hvaing been omitted and other plantation charges added which were correctly debitable to this head.

FORM No. 51.—*Area of forest tracts protected from fire during the dry season of 1883, to accompany Report for 1882-83.*

Division.	Forest tract.	Up to May 1882.		During dry season of 1883.				Total cost up to June 1883.	Year in which protection commenced.	Remarks
		Area actually protected.	Total cost	Area attempted to be protected.	Failure.	Area actually protected.	Amount expended.			
		Acres.	Rs.	Acres	Acres.	Acres.	Rs.	Rs.		
West Salween	Sinzwè	8,930	3,995	8,960	3	8,957	631	4,626	1871	
	Wamu	1,920	45	1,930	...	1,920	10	55	1871	
	Kahilu	1,280	121	1,280	...	1,280	26	147	1878	
	Mewaing	7,360	156	7,360	...	7,360	8	164	1877	
	Menanwè	3,840	10	3,840	...	3,840	1	11	1878	
	Ônkangyi	4,160	547	8,320	1,930	6,390	102	649	1877	
	Bilakatkyi	3,000								
East Salween	Mepale West	17,920	578	19,200	9,600	9,600	689	1,267	1881	
Ataban ...	Dali	600	200	154	91	63	74	274	1878	
	Kyunchaung	9,600	446	10,880	50	10,830	252	698	1880	
	Total ...	58,610	6,098	61,914	11,674	50,240	1,793	7,891	...	

		Rs.
Charged in previous year ...		1,857
Do.	1879-80 ...	1,299
Do.	1880-81 ...	1,533
Do.	1881-82 ...	1,409
Do.	1882-83 ...	1,793
Total ...		7,891

FORM No. 51.—*Area of forest tract protected from fire during the dry season of 1882 (to accompany Report for 1882-83)*—(concluded).

Division.	Forest tracts.	Up to June 1882. Area actually protected.	Up to June 1882. Total cost.	During dry season of 1883. Area attempted to be protected.	During dry season of 1883. Failures.	During dry season of 1883. Area actually protected.	During dry season of 1883. Amount expended.	Total cost up to June 1883.	Year in which protection commenced.	Remarks.
			Rs.				Rs.	Rs.		
Tharrawaddy...	Moka-Bilin	20,980	13,461	20,980	6,600	14,380	1,094	14,555	1873	
	Bawbin	802	3,466	814	..	814	314	3,780	1869	
	Myodwin	40	541	40	...	40	40	581	1869	
	Bwet	2,858	5,172	2,886	19	2,867	1,303	6,475	1877	
	Kangyi	3,801	8,191	3,801	152	3,649	1,114	9,305	1877	
	Nyanlè	5,160	11,301	5,340	1,300	4,040	1,135	12,436	1877	
	Thônzè Kôn-Bilin	2,180	410	2,180	...	2,180	190	530	1876	
	Myaung-Minhla	99	573	119	50	69	150	723	1876	
	Minhla-Môkka	2,940	791	3,000	150	2,850	220	1,011	1876	
	Gwedauksan	233	261	233	8	225	100	361	1876	
Rangoon ..	Magayi plantation	1,175	19,696	1,455	...	1,455	1,686	21,382	1872	
	Do. reserve	1,669		1,684	..	1,684				
	Do. Kyetpyugan	683	3,692	683	...	683	613	4,305	1868	
Prome ...	Teak plantation	75	6,954	*75	...	75	39	7,688	1857	
	Gwegyo reserve	3,362								*Last year's annual form 51 has a misprint, but the total is correct.
	Chaungzauk			3,562	67	3,495	695		1879	
Toungoo ...	Pyunchaung	3,439	4,559	3,440	6	3,434	473	5,032	1877	
	Yane	5,760	2,503	5,760	...	5,760	427	2,930		
	East Swa	...	..	17,280	7	17,273	1,174	1,174	1883	
Arakan ...	Myauktaung plantation	10	785	†	...	...	...	785	1874	† Details not received from Arakan.
	Total Pegu Circle ...	55,266	82,356	73,332	8,359	64,973	10,697	93,053	..	
	Add Tenasserim Circle ..	58,810	6,098	61,914	11,674	50,240	1,793	7,891	...	
	Grand Total British Burma ...	1,14,076	88,454	1,35,046	20,033	115,013	12,490	1,00,944	...	

Charged in previous years ...	63,365
Do. 1880-81... ...	9,043
Do. 1881-82.. ...	9,948
Do. 1882-83... ...	10,697
Total ...	93,053

Dr. ANNUAL FORM No 54.—[PRESCRIBED].—*Account-current for the year 1882-83.* *Cr.*

TENASSERIM CIRCLE		Rs. A. P.	Rs. A. P.
To Opening balance		.....	242 6 2
„ Revenue as per annual form No. 53		.....	8,77,564 11 5
„ *Service funds*—			
Military fund, Madras		94 11 9	
Military Orphan fund, Madras		12 0 0	
Uncovenanted S. F. P. fund, Bengal		1,111 6 0	
			1,218 1 9
„ *Forest cash remittances (local)*—			
Forest cheques drawn		4,19,892 0 0	
Inter-divisional transfers		.....	
			4,19,892 0 0
„ Advances recoverable		.....	69,242 13 8
„ *Account-current (other Governments)*—			
Government of N.-W. P. and Oudh		.....	404 3 2
„ *Inter-departmental transfers*—			
Military Department, Bengal		29 0 0	
Ditto, Madras		57 13 8	
Civil department—	Rs. A. P.		
Mathematical Instrument Department	125 7 0		
Jail	351 12 0		
Marine Department		477 3 0	
		3,784 5 5	
			4,348 6 1
Total		.....	13,72,912 10 3

PEGU CIRCLE		Rs. A. P.	Rs. A. P.
To Opening balance		.....	6,171 8 1
„ Revenue as per annual form No. 53		.....	16,26,330 13 6
„ *Service funds*—			
Military fund, Bombay		7 9 0	
Military Orphan fund, Bombay		0 9 0	
Uncovenanted S. F. P. fund, Bengal		1,167 5 0	
			1,175 7 0
„ *Forest cash remittances (local)*—			
Forest cheques drawn		8,56,522 15 6	
Inter-divisional transfers		74,661 9 11	
			9,31,184 9 5
„ Advances recoverable		.....	3,60,371 9 3
„ *Account-current (other Governments)*—			
Government of N.-W. P. and Oudh		.....	4,494 7 2
„ *Inter-departmental transfers*—			
P. W. D. State Railways, R. & S. V. S. Railway		4,023 11 2	
Other branches		88 8 0	
Military Department, Madras		151 10 2	
Civil department—	Rs. A. P.		
Jail	1,655 7 0		
Miscellaneous	7,559 6 10		
		9,214 13 10	
Telegraph Department		6 0 0	
Marine Department		20 10 1	
			13,505 5 3
Total		.....	29,43,233 11 8

TENASSERIM CIRCLE		Rs. A. P.	Rs. A. P.
By Expenditure as per annual form No. 53		.....	3,90,722 0 9
„ *Forest cash remittances (local)*—			
Remittances to treasuries		8,16,635 4 2	
Inter-divisional transfers		.....	
			8,16,635 4 2
„ Advances recoverable		.....	1,01,236 4 9
„ *Account-current (other Governments)*—			
Government of India		.....	11,189 9 3
„ *Inter-departmental transfers*—			
P. W. D., other branches		753 7 0	
Military Department, Madras		30,302 4 5	
Ditto, Bombay		2,314 14 0	
„ *Civil department*—			
Jail		7,716 7 10	
Telegraph Department		760 1 5	
Marine Department		10,992 11 4	
			52,839 14 0
„ Closing balance		.....	289 9 4
Total		.....	13,72,912 10 3

PEGU CIRCLE.		Rs. A. P.	Rs. A. P.
By Expenditure, as per annual form No. 53		.....	8,38,233 0 9
„ *Forest cash remittances (local)*—			
Remittances to treasuries		11,88,113 0 0	
Inter-divisional transfers		74,743 2 8	
			12,62,856 2 8
„ Advances recoverable		.....	3,97,287 0 5
„ Suspense		.....	38 10 0
„ *Inter-departmental transfers*—			
P. W. D. State Railways, R. & S. V. S. Railway		2,94,524 7 4	
Other branches		8,780 4 0	
Civil department—	Rs. A. P.		
Cinchona and coffee plantation charges, &c.	2,582 4 7		
Jail	1,09,868 14 4		
Rewards for passing examinations	1,000 0 0		
Miscellaneous	53 3 6		
		13,524 6 5	
Telegraph Department		22,175 1 5	
Marine Department		949 10 9	
			4,41,953 13 11
„ Closing balance		.....	2,864 15 11
Total		.....	29,43,233 11 8

J. G. VANSOMEREN, *Major,*
Asst. Comptroller-General, Forests.

ANNUAL FORM No. 54 [PRESCRIBED].—*Account current for the year 1882-83.*

Dr.

	Tenasserim Circle.	Pegu Circle.	Total British Burma.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
To opening balance	242 6 2	6,171 8 1	6,413 14 3
To revenue as per annual form No. 53	8,77,564 11 5	16,26,330 13 6	25,03,895 8 11
Service funds—			
Military fund, Madras	94 11 9	....	94 11 9
Military Orphan Fund, Madras	12 0 0	....	12 0 0
Military Fund, Bombay	.....	7 9 0	7 9 0
Military Orphan Fund, Bombay	.....	0 9 0	0 9 0
Uncovenanted Service Family Pension Fund ...	1,111 6 0	1,167 5 0	2,278 11 0
Forest cash remittances (local)—			
Forest cheques drawn	4,19,892 0 0	8,56,522 15 6	12,76,414 15 6
Inter-divisional transfers	.....	74,661 9 11	74,661 9 11
Advances recoverable	69,242 13 8	3,60,371 9 3	4,29,614 6 11
Account current (other Governments)—			
Government of North-Western Provinces and Oudh...	404 3 2	4,494 7 2	4,898 10 4
Inter-departmental transfers—			
Military Department, Bengal	29 0 0	....	29 0 0
Ditto, Madras	57 13 8	151 10 2	209 7 10
Public Works Department State Railways, Rangoon and Sittang Valley State Railway	.....	4,023 11 2	4,023 11 2
Other Branches	.....	88 8 0	88 8 0
Civil department—			
Mathematical Instrument Department	125 7 0	....	125 7 0
Jails	351 12 0	1,655 7 0	2,007 3 0
Miscellaneous	.....	7,559 6 10	7,559 6 10
Telegraph Department	.....	6 0 0	6 0 0
Marine ditto	3,784 5 5	20 10 1	3,804 15 6
Total ...	13,72,912 10 3	29,43,233 11 8	43,16,146 5 11

Cr.

	Tenasserim Circle.	Total Pegu Circle.	Total British Burma.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
By expenditure as per annual form No. 53	3,90,722 0 9	8,38,233 0 9	12,28,955 1 6
Forest cash remittances (local)—			
By remittances to treasuries	8,16,635 4 2	11,88,113 0 0	20,04,748 4 2
By inter-divisional transfers	.....	74,743 2 8	74,743 2 8
By advances recoverable	1,01,236 4 9	3,97,287 0 5	4,98,523 5 2
By suspense	.. ..	38 10 0	38 10 0
Inter-departmental transfers—			
By Public Works Department State Railways, Rangoon and Sittang Valley State Railway ...	.....	2,94,524 7 4	2,94,524 7 4
By Military Department, Madras	30,302 4 5	.. .	30,302 4 5
Ditto, Bombay	2,314 14 0	.. ...	2,314 14 0
By Public Works Department other branches ...	753 7 0	8,780 4 0	9,533 11 0
Civil department—			
Cinchona and coffee plantation charges ...	.....	2,582 4 7	2,582 4 7
Jails	7,716 7 10	1,09,888 14 4	1,17,605 6 2
Rewards for passing examinations	.....	1,000 0 0	1,000 0 0
Telegraph Department	760 1 5	24,175 1 5	24,935 2 10
Marine ditto	10,992 11 4	949 10 9	11,942 6 1
Miscellaneous	.....	53 3 6	53 3 6
Account current (other Governments)—			
Government of India	11,189 9 3	.....	11,189 9 3
Closing balance	289 9 4	2,864 15 11	3,154 9 3
Total ...	13,72,912 10 3	29,43,233 11 8	43,16,146 5 11

FORM No. 55 [PRESCRIBED.]—*Statement of outstandings and liabilities on account of contractors and disbursers for 1882-83.*

Division.	Department debtor.			Department creditor.			Balance due.		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To department (outstandings).	By department (liabilities).	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Salween	.....	68,761 5 8	68,761 5 8	15,608 5 8	99,783 0 9	1,15,391 6 5	46,630 0 9	.....	
Kado revenue station	.....	461 8 0	461 8 0	.....	1,453 4 0	1,453 4 0	971 12 0	.....	
Total Tenasserim Circle ...	.....	69,242 13 8	69,242 13 8	15,608 5 8	1,01,236 4 9	1,16,844 10 5	47,601 12 9	.....	
Government Timber Depôt and Agency Office ...	.....	47,441 1 11	47,441 1 11	25,677 4 8	24,278 6 3	49,955 10 11	2,514 9 0	.....	
Rangoon	1,230 0 0	33,620 9 2	34,850 9 2	1,849 14 2	39,059 6 5	40,909 4 7	7,008 11 5	950 0 0	
Tharrawaddy	.....	1,35,908 5 0	1,35,908 5 0	19,441 1 5	1,63,639 3 3	1,83,080 4 8	47,171 15 8	.....	
Prome...	.....	29,241 15 0	29,241 15 0	9,365 14 0	43,311 9 0	52,677 7 0	23,435 8 0	.....	
Western	.....	7,473 6 9	7,473 6 9	10,708 11 4	6,721 6 1	17,430 1 5	9,957 10 8	1 0 0	
Toungoo	9,526 6 0	57,221 5 5	66,747 11 5	1,450 6 11	68,600 1 5	70,050 8 4	3,302 12 11	.....	
Shwegyin	.....	49,464 14 0	49,464 14 0	2,153 0 0	51,677 0 0	53,830 0 0	4,365 2 0	.....	
Arakan	.....	.....	.....	.....	.....	.....	.....	.....	
Total Pegu Circle ...	10,756 6 0	3,60,371 9 3	3,71,127 15 3	70,646 4 6	3,97,287 0 5	4,67,953 4 11	97,756 5 8	951 0 0	
TOTAL BRITISH BURMA ...	10,756 6 0	4,29,614 6 11	4,40,370 12 11	86,254 10 2	4,98,523 5 2	5,84,777 15 4	1,45,358 2 5	951 0 0	

J. G. VANSOMEREN, *Major,*
Asst. Comptroller-General, Forests.

ANNUAL FORM No. 56.—[PRESCRIBED.]—*Revenue received and outstandings on account of revenue during 1882-83.*

Division	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the department at end of year.	Remarks.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs A. P.	
SALWEEN ...	Timber and other produce, &c.	35,426 15 2	6,84,649 15 3	7,20,076 14 5	7,20,076 14 5	.....	
KADO REVENUE STATION...	Do. do.	.. ..	1,57,487 13 0	1,57,487 13 0	1,57,487 13 0	.....	
	Total Tenasserim Circle ...	35,426 15 2	8,42,137 12 3	8,77,564 11 5	8,77,564 11 5	. ...	
G. T. DEPOT AND AGENCY OFFICE	Timber and other produce, &c.	21,050 10 9	11,32,842 5 0	11,53,892 15 9	11,16,088 11 11	37,804 3 10	
RANGOON ...	Do do.	....	66,843 4 9	66,843 4 9	66,843 4 9	....	
THARRAWADDY ..	Do. do.	.....	91,938 6 4	91,938 6 4	91,856 6 4	82 0 0	
PROME	Do. do.	.....	77,508 8 10	77,508 8 10	77,508 8 10	.....	
WESTERN	Do do.	.....	30,504 15 11	30,504 15 11	30,504 15 11	.....	
TOUNGOO	Do. do.	. ...	85,110 5 8	85,110 5 8	84,954 14 10	155 6 10	
SHWEGYIN	Do. do.	186 8 0	1,44,732 5 6	1,44,918 13 6	1,44,918 13 6	..	
ARAKAN	Do. do.	. ....	230 5 0	230 5 0	230 5 0	.....	
ARREAR ADJUSTMENT ACCOUNTS	Do. do.	. ....	13,424 12 5	13,424 12 5	13,424 12 5	... .	
	Total Pegu Circle ...	21,237 2 9	16,43,135 5 5	16,64,372 8 2	16,26,330 13 6	38,041 10 8	From private purchasers.
	GRAND TOTAL, BRITISH BURMA ...	56,664 1 11	~~24,85,251 1 9~~	25,41,915 3 7	25,03,895 8 11	~~38,019 10 8~~	

J. G. VANSOMEREN, *Major,*
Asst. Comptroller-General, Forests.

ANNUAL FORM No. 57.—[PRESCRIBED].—*Statement showing the financial results in the Tenasserim and Pegu circles for the year 1882-83.*

Division.		Timber and other produce removed from the forest by Government agency.		Other revenue.		Formation, protection, and improvement of forests.	Total.		Remarks.
		Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
TENASSERIM ...	Salween	71,211	42,060	5,786	3,551	5,496	76,997	51,107	
	East Salween	3,65,956	82,023	7,507	1,908	8,590	3,73,463	92,521	
	West Salween	61,628	47,240	1,368	1,125	10,327	62,996	58,692	
	Attaran	1,30,024	76,121	8,742	1,308	5,007	1,38,766	82,436	
	South Tenasserim	56.430	40,200	11,424	6,072	9,682	67,854	55,954	
	Kado	79.499	36,000	77,990	8,905	5,107	1,57,489	50,012	
	Total Tenasserim Circle ...	7,64,748	3,23,644	1,12,817	22,869	44,209	8,77,565	3,90,722	
PEGU ...	Tharrawaddy	3,67,003	1,43,775	89,642	21,617	47,408	4,56,645	2,12,800	
	Rangoon	2,61,289	1,01,404	35,219	13,997	21,701	2,96,508	1,37,102	
	Prome	2,23,246	62,885	75,472	13,168	13,673	2,98,718	89,726	
	Toungoo	3,17,000	1,63,796	8,717	6,306	20,942	3,25,717	1,90,984	
	Western	20,410	18,236	10,095	4,895	4,229	30,505	27,360	
	Shwaygyin	1,42.802	1,48,404	8,608	5,418	5,417	1,51,410	1,59,239	
	Arakan	173	.....	465	2,164	...	638	2,164	
	Agency	54,156	18,858	12,034	.....	...	66,190	18,858	
	Total Pegu Circle ...	13,86,079	6,57,292	2,40,252	67,565	1,13,370	16,26,331	8,38,233	
	GRAND TOTAL BRITISH BURMA ...	21,50,827	9,80,943	3,53,069	90,434	1,57,579	25,03,896	12,28,955	

FORM No. 60.—*Statement of timber and other produce received from forests in sale depôt during the year 1882-83.*

Division.	Depot	Produce received. Description.	Number or quantity.	Cubic feet.	Remarks.
		TENASSERIM CIRCLE.			
SALWEEN.	Battery point and Kado depôts.	Teak pieces and crooks	4,949	50,710	Lower Salween forest.
		Teak crooks	264	2,640	Kolun forest.
		Thitka logs	331	20,442	
		Pyinma do.	326	11,695	
		Pyingado do.	66	802	
		Pyingado sleepers, large	260	902	
		Ditto ditto, small	131	196	
		Total Salween ...	6,329	87,387	
EAST SALWEEN ...	Ditto	Teak logs and pieces	6,454	340,882	Thaungyin forest.
		Teak pieces and crooks	1,528	18,406	Hlaingbweh forest.
		Teak logs, pieces, and crooks ...	387	7,505	Houngdraw forest.
		Thitka logs	137	7,339	
		Pyinma do.	927	44,360	
		Pyingado do.	105	1,697	
		Padauk do.	4	160	
		Thingan boat-hulls	4	404	
		Total East Salween ...	9,546	420,773	
WEST SALWEEN ...	Ditto ...	Teak logs and pieces	302	11,979	Bilin forest.
		Ditto	772	18,294	Yunzalin forest.
		Teak pieces and crooks	5,257	105,749	Dumdami forest.
		Thitka logs	84	4,284	
		Pyinma do.	40	1,312	
		Pyingado do.	48	768	
		Total West Salween ...	6,503	142,386	
ATARAN ...	Ditto ...	Teak logs, pieces, and crooks ...	8,997	161,811	Ataran forest.
		Thitka logs	372	25,481	
		Pyinma do.	834	37,727	
		Pyingado do.	31	771	
		Padauk do.	128	4,458	
		Ingyin do.	101	3,138	
		Petwun do.	19	387	
		Coco do.	12	275	
		Kaunghmu do	7	244	
		Thitka do.	48	1,795	
		Yamane do	14	529	
		Thingan boat-hulls	3	50	
		Padauk planks	37 tons	1,868	
		Total Ataran ...	10,603	238,034	
SOUTH TENASSERIM ...	Tavoy ...	Teak logs	19	1,138	Drift.
		Teak squares	21	1,197	Do.
		Thitka logs	322	21,251	
		Pyinma do.	20	577	
		Kanazo do.	33	1,263	
		Yamane do.	18	553	
		Anan do.	21	602	
		Manthin do.	17	536	
		Kyazè do.	19	555	
		Che do.	22	637	
		Karawe do.	18	402	
		Magale do.	20	574	
		Thingan do.	18	485	
		Pyingado sleepers, large	1,760	6,179	
		Ditto ditto, small ...	8,933	13,398	
		Teak planks	5	36	Drift.
		Pyingado scantlings	21 tons	1,055	
	Mergui	Teak logs	61	2,025	Drift.
		Total South Tenasserim ...	11,368	53,183	
KADO	Kado and Battery point.	Teak logs	5,366	238,816	Drift.
		GRAND TOTAL ...	49,715	1,180,579	

FORM No. 60.—*Statement of timber and other produce received from forests in sale depôts during the year 1882-83*—(continued).

Division.	Depôt.	Produce received. Description.	Number or quantity.	Cubic feet.	Remarks
		Abstract of the Divisions.			
		Teak logs, pieces, and crooks ...	34,356	960,055	
		Teak squares	21	1,197	
		Thitka logs	1,246	78,797	
		Pyinma do.	2,147	95,691	
		Pyingado do.	252	4,038	
		Padauk do.	132	4,618	
		Ingyin do.	101	3,138	
		Kanazo do.	33	1,203	
		Petwun do.	19	387	
		Yamane do.	32	1,082	
		Thitya do.	48	1,795	
		Coco do.	12	275	
		Kaunghmu do.	7	244	
		Anan do.	21	602	
		Manthin do.	17	536	
		Kyazè do.	19	555	
		Cho do.	22	637	
		Karawe do.	18	462	
		Magale do.	20	574	
		Thingan do.	18	485	
		Thingan boat-hulls	7	454	
		Pyingado sleepers, large	2,040	7,081	
		Ditto ditto, small ...	9,004	13,594	
		Teak planks	5	36	
		Padauk do	Tons 37	1,868	
		Pyingado scantlings . . .	" 21	1,055	
		Total Timber ...	49,715	1,180,579	
		PEGU CIRCLE.			
		Teak logs—			
THARRAWADDY ...	Government timber depôt, Rangoon	Yathits	1,113	40,095	
		Hlwazas	7,273	370,923	
		Dugyis	3,503	217,323	
		Yard and mast pieces	44	4,268	
		Squares	7	210	
		Dwani	15	300	
		Total ...	12,015	633,119	
		Teak logs—			
RANGOON ...	Ditto ...	Yathits	9	324	
		Hlwazas	89	4,539	
		Dugyis	1,452	88,572	
		Yard and mast pieces .	103	9,991	
		Extracted on ½ profit principle...	2,647	108,527	
		Kanyin	166	6,640	
		Thitka	65	3,250	
		Pyinma	21	672	
		Pyingado	26	728	
		Jungle wood, various	115	3,910	
		Total ...	4,693	227,153	
		Teak logs—			
PROME ...	Ditto ...	Yathits	301	10,836	
		Hlwazas	1,217	62,067	
		Dugyis	2,345	143,045	
		Yard and mast pieces	23	2,231	
		Total ...	3,886	218,179	
		Teak logs—			
TOUNGOO ...	Ditto ...	Yathits	133	4,788	
		Hlwazas	755	38,505	
		Dugyis	698	42,578	
		Yard and mast pieces... ..	4	388	
		Extracted on ½ profit principle ..	2,053	84,173	
		Ditto ditto ...	256	9,728	
		Thitka logs	104	5,200	
		Pyingado posts	1,982	10,282	
		Total ..	5,985	195,642	
AGENCY ...		Pyingado sleepers	6,868	10,356	
		Scantlings	27	25	
		Total ...	6,895	10,381	
WESTERN	Bassein ...	Kashit logs	153	6,329	
		Thingan do.	5	551	
		In do.	169	8,134	
		Thitpyu do.	8	456	
		Kyettuywe do.	6	252	
		Pyingado do.	187	1 912	
		Kanyin do.	101	3,578	
		Thitto do.	23	900	
		Thabye do.	44	1,699	
		Tinnébo do.	13	502	
		Kyaungdauk do.	2	50	
		Kyinbo do.	1	21	
		Linbôn do	4	144	
		Total ...	717	24,528	

FORM No. 60.—*Statement of timber and other produce received from forests in sale depôts during the year 1882-83.*—(concluded).

Division.	Depôt.	Produce received: Description.	Number or quantity.	Cubic feet.	Remarks.
SHWEGYIN ...	Drift timber ..	Dugyis	62	2,356	
		Hlwazas	267	10,146	
		Short pieces...	104	3,952	
		Yathits	115	4,370	
		Thitka	71	2,698	
		Pyinma	39	1,482	
		Kanyin	1	38	
		Woods various	13	494	
		Total ...	672	25,536	
RANGOON ...	Ditto ...	Dugyis	148	5,624	
		Hlwazas	198	7,524	
		Short pieces...	157	5,966	
		Yathits	66	2,508	
		Yard pieces	5	190	
		Squares	1	38	
		Thitka	18	684	
		In	2	76	
		Pyinma	12	456	
		Kanyin	30	1,140	
		Woods various	102	3,876	
		Total .	739	28,082	
AGENCY ..	Ditto ...	Dugyis	250	9,500	
		Hlwazas	434	16,492	
		Short pieces	68	2,584	
		Yathits	72	2,736	
		Yard pieces	10	380	
		Squares	21	798	
		Thitka	21	798	
		In	5	190	
		Pyinma	3	114	
		Padauk	3	114	
		Kanyin	13	494	
		Wood various	17	646	
		Total ...	917	34,846	
BASSEIN ..	Ditto ...	Teak logs	73	2,774	
		GRAND TOTAL ...	36,592	1,400,240	
		Abstract of the Divisions.			
		Teak logs and pieces	26,136	1,321,049	
		Kanyin logs	311	11,890	
		Thitka do.	432	18,959	
		Pyinma do.	75	2,724	
		Pyingado do.	213	2,640	
		Dwani do.	15	300	
		In do.	176	8,400	
		Pyingado posts	1,982	10,852	
		Ditto sleepers	6,808	10,556	
		Scantlings	27	25	
		Thabye	44	1,589	
		Thitto	23	900	
		Thingan	6	551	
		Thitpyu	8	456	
		Tinnôbo	13	502	
		Kyaungdauk	2	50	
		Kyinbo	1	21	
		Linbôn	4	141	
		Padauk	3	114	
		Kyettuywe	6	252	
		Woods various	247	8,926	
		Total ...	36,592	1,400,240	

FORM No. 61.—*Sale of timber and other produce cut and collected by Government agency during the year 1882-83.*

Division.	Depôt or locality.	Produce sold. Description.	Number or quantity.	Cubic feet.	Remarks.
		TENASSERIM CIRCLE.			
		Sold from depôts.			
SALWEEN	Kado and Battery Point.	Teak pieces and crooks	4,049	50,710	Lower Salween Kalun.
		Do. crooks	264	2,640	
		Thitka logs	331	20,442	
		Pyinma do.	284	11,062	
		Pyingado do.	60	667	
		Ditto sleepers, large	86	332	
		Ditto do., small	405	607	
		Total ...	6,389	86,460	
EAST SALWEEN ...	Ditto ...	Teak logs and pieces	7,872	415,202	Thaungyin. Hlaingbwe. Haungdaraw
		Do. pieces and crooks	1,528	18,406	
		Do. logs, pieces, and crooks ...	887	7,505	
		Thitka logs	137	7,339	
		Pyinma do.	925	44,306	
		Padauk do.	16	324	
		Thitpyu do.	6	306	
		Total ...	10,871	493,388	
WEST SALWEEN ...	Ditto ...	Teak pieces and crooks	5,257	105,749	Dondami. Bilin. Yunzalin.
		Do. logs and pieces	302	11,979	
		Ditto ditto	772	18,291	
		Thitka logs	84	4,284	
		Pyinma do.	40	1,312	
		Thitpyu do.	6	230	
		Total... ...	6,461	141,848	
ATARAN	Ditto ...	Teak logs, pieces, and crooks ...	8,997	161,311	Ataran.
		Thitka logs	369	25,295	
		Pyinma do.	987	42,405	
		Padauk do.	199	6,992	
		Ingyin do.	37	1,233	
		Thitpyu do.	5	115	
		Thingan boat-hulls	3	50	
		Padauk log ends	223	...	
		Total ...	10,820	237,401	
SOUTH TENASSERIM...	Tavoy	Teak logs	19	1,138	Drift.
		Do. squares	21	1,197	Do.
		Do. planks	5	36	Do.
		Pyingado sleepers, large... ...	2,224	7,720	
		Ditto do., small ...	8,833	13,248	
		Ditto scantlings	24 tons	1,204	
		Thitka do.	176 "	8,830	
	Mergui	Teak logs	61	2,625	Drift.
		Total ...	11,363	35,998	
KADO	Kado and Battery Point.	Teak logs	2 652	119,565	Drift.
		TOTAL TENASSERIM ...	48,556	1,114,660	
		Sold locally.			
SALWEEN	Zemathwè ...	Pyingado posts	12	60	
EAST SALWEEN ...	Kawkareik ...	Thitka pieces	1	15	
WEST SALWEEN ...	Papun	Teak logs	14	420	
		Pyinma logs	109	2,800	
KADO	Seashore ...	Teak logs	543	21,180	Drift.
		Total ...	679	24,475	
		ABSTRACT OF THE SEVERAL DIVISION.			
		Sold from depôts.			
		Teak logs	33,060	915,124	
		Thitka do.	921	57,360	
		Padauk do.	215	7,316	
		Pyinma do.	2,236	99,085	
		Pyingado do.	60	667	
		Ingyin do.	37	1,233	
		Thitpyu do.	17	651	
		Thingan boat-hulls	3	50	
		Pyingado sleepers, large	2,320	8,052	
		Ditto do., small... ...	9,238	13,855	
		Ditto scantlings	24 tons	1,204	
		Thitka do.	176 "	8,830	
		Teak squares	21	1,197	
		Do. planks	5	36	
		Padauk log ends	223	...	
		Total ..	48,556	1,114,660	
		Sold locally.			
		Teak logs	557	21,600	
		Pyinma do.	109	2,800	
		Thitka pieces	1	15	
		Pyingado posts...	12	60	
		Total ...	679	24,475	

Form No. 61.—*Sale of timber and other produce cut and collected by Government agency during the year 1882-83*—(continued).

Division.	Depôt or locality.	Produce sold. Description.	Number or quantity.	Cubic feet.	Remarks.
		PEGU CIRCLE.			
		Part I.			
		Sold from depôt.			
Agency	Government timber-depot, Alôn.	Teak logs	17,734	885,603	
		Kanyin	848	13,425	
		Thitka	641	33,276	
		Pyinma	122	4,000	
		Pyingado	26	753	
		Dwani	15	300	
		Teak sleepers, metre gauge ...	14	21	
		Pyingado sleepers	6,868	10,356	
		Do. telegraph posts ...	1,982	10,282	
		Thitka scantlings	27	25	
		Teak drift logs	268	10,104	
		Other kinds	503	17,102	
		Total ...	28,548	985,337	
Western	....	Pyingado	131	1,359	
		Kyeinbo	17	583	
		Kôkeko	23	1,007	
		Thingan	19	1,099	
		Thabye	48	1,843	
		In	95	4,487	
		Do.	13	502	
		Kashit	438	17,512	
		Do.	4	144	
		Kyaungdauk	2	50	
		Taungthayet	2	90	
		Thitto	6	389	
		Kanyin	20	350	
		Teak drift	71	2,698	
		Total ...	889	32,113	
		Total Part I ...	29,437	1,017,450	
		Part II.			
		Sold locally.			
Promn	....	Pyingado logs...	40	1,200	
		Drift teak	130	4,940	
		Total ...	170	6,140	
Shwegyin ...	Line of railway ...	Teak sleepers	19,870	29,805	
		Sleepers, other kinds	58,493	87,740	
	Kyaikpadaing ...	Kanyin logs	200	20,439	On ½ profit system.
		Other kinds, drift	31	2,175	
		Total ...	78,594	140,159	
Western	Myanaung and Okpo.	Teak logs	96	2,816	
		Various	145	3,809	
		Drift teak	122	4,632	
		Total. ...	363	11,257	

FORM No. 61.—*Sale of timber and other produce cut and collected by Government agency during the year 1882-83*—(concluded).

Division.	Depôt or locality.	Produce sold. Description.	Number or quantity.	Cubic feet.	Remarks.
		PEGU CIRCLE—(*concluded*).			
		PART II—(concluded).			
		Sold locally			
RANGOON	Pegu	Teak refuse	348	14,920	
		Kanyin	43	3,861	
		Pyingado posts...	12	60	
		Do. scantlings	214	951	
		Do. tramway sleepers ...	10,500	12,760	
		Total ...	11,117	32,552	
TOUNGOO	Toungoo... ...	Teak logs	810	40,760	
		Pyinma	1	35	
		Sleepers other kinds	16,817	25,225	
		Teak logs	99	3,479	
		Ditto	36	1,666	
		Ditto	35	1,987	
		Ditto	51	2,082	
		Ditto	39	2,587	
		Ditto	47	2,986	
		Teak drift	4	150	
		Total ...	17,948	80,957	
THARRAWADDY ...	....	Teak logs	35	1,965	
		Do. drift	33	1,260	
		Total ..	68	3,225	
		Total Part II ...	108,260	274,290	
		Total Parts I and II ...	137,697	1,291,740	
		Abstract of depôt sales.			
		Teak logs	17,734	885,693	
		Kanyin	368	13,775	
		Thitka	641	33,276	
		Pyinma	122	4,000	
		Pyingado	157	2,112	
		Dwani	15	300	
		Teak sleepers, metre gauge ...	14	21	
		Pyingado sleepers	6,868	10,356	
		Kyeinbo	17	583	
		Pyingado telegraph posts ...	1,982	10,282	
		Thitka scantlings	27	25	
		Kôkko	23	1,007	
		Thingan	19	1,009	
		Thabye	48	1,843	
		In	95	4,487	
		Do.	13	502	
		Kashit	438	17,512	
		Lillone	4	144	
		Kyaungdauk	2	50	
		Taungthayet	2	90	
		Thitto	6	389	
		Teak drift	339	12,802	
		Other kinds	503	17,102	
		Total Part I ...	29,437	1,017,450	
		Abstract of local sales.			
		Teak logs	1,257	60,328	
		Do. sleepers	19,870	29,805	
		Other kinds, sleepers	75,310	112,965	
		Kanyin logs	243	24,300	
		Teak refuse	348	14,920	
		Pyingado posts...	12	60	
		Pyinma logs	1	35	
		Pyingado scantlings	214	951	
		Do. sleepers	10,500	12,760	
		Do. logs	40	1,200	
		Various	145	3,809	
		Teak drift	289	10,982	
		Other kinds drift	31	2,175	
		Total Part II ...	108,260	274,290	
		Total Parts I and II ...	137,697	1,291,740	

ANNUAL FORM No. 62 [PRESCRIBED].—*Account of timber and other produce cut or collected by Government agency and brought to sale depôts or sold locally during the year 1882-83.*

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
TENASSERIM CIRCLE.				
Balance at the commencement of the year.				
Salween division. Pyingado sleepers, large	66	298		
Pyingado sleepers, small	547	735		
Thitya sleepers ...	8	27		
Pyiuma, kanazo scantlings	...	11		
East Salween division. Thaungyin teak logs...	1,419	74,421		
Padauk logs	97	1,564		
Thitpyu do. ...	6	306		
West Salween division. Thitgado logs ...	40	1,809		
Thitpyu do. ...	20	617		
Pyingado do. ...	15	300		
Attaran division. Padauk logs ...	149	4,209		
Petwun do. ...	6	120		
Pyinma do. ...	240	8,100		
Thingan do. ...	25	876		
Thitka do. ...	19	1,285		
Thitpyu do.	5	115		
Sit do. ...	14	323		
Ingyin do. ...	13	288		
Padauk planks ...	Tons 2	89		
South Tenasserim division. Pyingado and gangaw sleepers, large	2,186	7,590		
Pyingado scantlings	Tons 10	501		
Kado division. Drift timber... ...	1,787	63,043		
Foreign teak ...	10,584	554,530		
Foreign woods, other kinds	15	865		
British teak ..	256	13,800		
British woods, other kinds	4	78		
Total Balance ...	.....	...	*17,553	786,800
Received from the forests in depôts.				
Teak logs, pieces and crooks	28,914	717,699		
Teak squares	21	1,107		
Thitka logs	1,246	78,797		
Pyinma do.	2,147	95,691		
Pyingado do.	262	4,195		
Padauk do.	132	4,618		
Ingyin do.	101	3,138		
Kanazo do.	33	1,263		
Petwun do.	19	387		
Yamane do.	32	1,082		
Thitya do.	48	1,795		
Kôkko do.	12	275		
Kaunghmu do.	7	244		
Anan do.	21	662		
Manthin do.	17	536		
Kyanzè do.	19	555		
Che do.	22	637		
Karawe do.	18	462		
Magale do.	20	574		
Thingan do.	18	485		
Thingan boat-hulls ...	7	454		
Pyingado sleepers, large ...	2,040	7,081		
Ditto do., small ...	9,004	13,504		
Teak planks, drift	5	36		
Padauk planks	Tons 37	1,868		
Pyingado scantlings ...	" 2	1,055		
Number of logs entered duly during 1882-83—Foreign teak	116,818	7,030,200		
Foreign woods other than teak	47	2,800		
British teak	8,655	216,375		
British other than teak ...	617	37,432		
Number of drift logs brought into depôt	5,446	242,579		
			175,866	8,467,766

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number of quantity.	Total of each head. Cubic feet.
Removed by purchasers from depôts.				
Teak logs	30,328	791,796		
Thitka do.	921	57,360		
Padauk do.	215	7,316		
Pyinma do.	2,236	99,085		
Pyingado do	60	667		
Ingyin do.	37	1,233		
Thitpyu do.	17	651		
Thingan boat-hulls ...	3	50		
Pyinkado sleepers, large ...	2,320	8,052		
Ditto do., small ...	9,238	13,855		
Pyingado scantlings ...	Tons 24	1,204		
Thitka do.	176	8,830		
Teak squares	21	1,197		
Teak planks	5	36		
Padauk log ends	223	...		
Teak logs, drift	2,732	123,328	48,556	1,114,660
Sold locally.				
Teak logs	14	420		
Pyinma do.	109	2,800		
Thitka pieces	1	15		
Pyingado posts	12	60		
Drift logs, teak	543	21,180	679	24,475
Number of logs cleared up to date on payment of duty from depôts.				
Foreign teak	116,035	6,962,100		
Foreign woods, other kinds...	53	2,180		
British teak	7,075	137,425	123,163	7,102,705
Number of drift logs delivered to claimants on payment of salvage	2,554	112,055	2,554	112,055
Converted in depôts.				
Pyingado logs	152	2,526		
Pyinma do.	77	3,059		
Thitka do.	289	19,009	518	24,594
Lost or written off as useless.				
Thitpyu logs	14	387		
Pyingado sleepers, large ...	54	187	68	574
Balance at the close of the year.				
Salween division. Pyinma logs ...	42	633		
Pyingado do. ...	8	135		
Do. sleepers, large	330	1,145		
Do. do., small	273	324		
Thitya sleepers ...	8	27		
Pyingado planks Tons	33	1,662		
Pyinma planks "	40	2,018		
Pinlè-kanazo scantlings	...	11		
East Salween division. Teak logs, thaungyin	1	101		
Padauk logs ...	85	1,400		
Pyinma do. ...	2	74		
Pyingado do. ...	5	97		
Thingan boat-hulls ...	4	404		
West Salween division. Pyingado logs ...	11	142		
Thitkado do. ...	40	1,809		
Attaran division. Padauk logs ...	78	1,675		
Pyinma do. ...	10	363		
Thitka do. ...	22	1,471		
Pyingado do. ...	31	771		
Petwun do. ...	25	507		
Thingan do. ...	25	876		
Sit do. .	14	323		
Ingyin do. ...	77	2,193		
Kôkko do. ...	12	275		
Kaunghmu do.	7	244		
Thitya do. ...	48	1,795		
Yamane do. ..	14	529		
Padauk planks Tons	30	1,057		

* The balance of timber is shown as 12 pieces more at the close of the previous year owing to the tonnage of pyingado scantlings and padauk planks now being inserted in the column "Number or quantity."

ANNUAL FORM No. 62 [PRESCRIBED].—*Account of timber and other produce cut or collected by Government agency*—(continued).

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
Received from the forests and sold locally.				
Teak logs	14	420		
Pyinma do.	109	2,800		
Thitka pieces	1	15		
Pyingado post	12	60		
Drift logs, teak	543	21,180		
			679	24,475
Received by conversion in depôts.				
Pyinma planks Tons	40	2,018		
Pyingado do. "	33	1,602		
Thitka scantlings "	213	10,696		
Pyingado sleepers, large ...	80	277		
Log ends	223	..		
			589	14,653
Total Tenasserim ...	...	...		
PEGU CIRCLE.				
Opening balance.				
Agency—				
Teak logs	8,136	309,264		
Do. sleepers ...	79	118		
Thitka	512	32,818		
Pyinma	100	3,739		
Kanyin	96	4,270		
Teak drift	56	2,793		
Various other kinds, drift	125	4,852		
			9,104	357,854
Western—				
Kashit	285	11,442		
Kanyin	73	2,809		
Thingan	13	547		
Taungthayet ...	2	90		
Kyeinbo	16	561		
Thitto	76	3,241		
Kôkko	23	1,007		
Thabye	4	143		
In	506	20,215		
Teak drift	42	1,946		
			1,040	42,001
Tharrawaddy—				
Teak logs	...	...	2,465	120,785
Rangoon—				
Pyingado	...	...	277	5,974
Toungoo—				
Teak logs	136	6,800		
Pyinma	70	2,800		
Thitka	41	2,050		
Teak drift	10	500		
			257	12,150
Shwegyin—	...	..		
Teak logs	13	663		
Ditto, drift ...	813	42,811		
Thitka do. ...	76	3,800		
Kanyin do. ...	16	1,180		
Pyinma do. ...	96	3,840		
Thitpyu do. ..	9	405		
Thitto do. ..	8	360		
Thitgado do. ...	2	90		
Pyingado do. ...	2	90		
Various do. ...	111	5,281	1,146	58,520
Total opening balance ..	...	...	14,289	597,284
Received from forests by extraction.				
Teak logs	24,168	1,223,728		
Do. sleepers	4,000	6,000		
Other kinds, logs ...	5,223	157,710		
Ditto, sleepers ...	23,000	34,500		
			56,391	1,421,938

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
South Tenasserim division.				
Teak logs ...	4	223		
Pyinma do. ...	20	577		
Thitka do. ...	33	2,242		
Thingan do. ...	18	485		
Kanazo do.	33	1,263		
Anan do. ...	21	663		
Manthin do. ...	17	536		
Kyanzè do. ...	19	553		
Chay do. ...	22	637		
Yiamane do. ...	18	553		
Karawe do. ...	18	462		
Magalo do. ...	20	574		
Pyingado sleepers, large ...	1,688	5,862		
Pyingado sleepers, small... ...	100	150		
Pyingado scantlings ... Tons	7	352		
Thitka scantlings "	37	1,866		
Pyingado ...	10	157		
Kado division.				
Drift timber ...	1,948	71,139		
Foreign teak ...	11,367	622,630		
Foreign woods, other kinds ...	9	485		
British teak ...	1,835	92,751		
British woods, other kinds ...	621	37,510		
			19,149	864,631
Total Tenasserim Circle..	...	...	194,687	9,243,694
Removed by purchasers from depôts.				
Teak logs	17,734	885,693		
Do. sleepers ...	14	21		
Thitka logs ..	1,079	50,788		
Do. scantlings ...	27	25		
Kanyin logs	282	10,820		
Pyinma do.	122	4,000		
Pyingado do.	157	2,112		
Do. telegraph posts	1,982	10,282		
Do. sleepers ...	6,868	10,356		
Dwani logs	15	300		
Kyeinbo	17	583		
Kôkko	23	1,007		
Thingan	19	1,099		
Thabye	48	1,848		
In	95	4,487		
In	13	502		
Lillone	4	144		
Kyaungdauk	2	50		
Taungthayet	2	90		
Thitto	6	389		
Various	86	2,955		
Teak logs, drift ...	339	12,802		
Other kinds, drift ...	503	17,102		
			29,437	1,017,460
Sold locally—				
Teak logs	1,605	75,248		
Do. sleepers ...	19,870	29,805		
Kanyin logs ...	243	24,300		
Pyinma	1	35		
Pyingado	40	1,200		
Do. posts ...	12	60		
Do. scantlings ...	214	951		
Do. tramway sleepers ...	10,500	12,760		
Other kinds, sleepers...	75,910	112,965		
Drift teak logs ...	280	10,983		
Drift, other kinds ...	176	5,984		
			108,200	274,290
Total ...				

ANNUAL FORM No. 62 [PRESCRIBED].—*Account of timber and other produce cut or collected by Government agency*—(concluded).

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
PEGU CIRCLE—(contd.)				
Received from forests and sold locally.				
Teak logs	1,605	75,248		
Do. sleepers	19,870	29,805		
Pyingado logs	40	1,200		
Do. posts ...	12	60		
Kanyin ...	243	24,300		
Pyinma	1	35		
Other kinds, sleepers ...	75,310	112,965		
Teak drift	289	10,982		
Other kinds, drift ...	176	5,984		
			97,546	260,579
Received by conversion locally.				
Pyingado scantlings ...	214	951		
Pyingado tramway sleepers	10,500	12,760		
			10,714	13,711
Drift collected in various divisions and disposed of locally during the year.				
Teak logs	7,510	295,380		
Other kinds	619	21,046		
			8,129	316,426
Collected by Agency.				
Other kinds, sleepers ...	6,868	10,356		
Ditto, scantlings ...	27	25		
Teak drift	855	32,026		
Other kinds, drift ...	62	2,282		
			7,812	44,689
Received from forests into depôts.				
Teak logs	24,085	1,243,111		
Other kinds	1,229	45,228		
Ditto, telegraph posts	1,982	10,282		
Teak drift, logs ...	1,081	43,228		
Other kinds, logs ...	403	13,702		
			28,780	1,355,551
Difference by transit—Teak ...	...	...	206	10,300
Total ...	...	...	223,867	4,020,478

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
Used by the Department.				
Teak logs	2	90		
Other kinds	10	350	12	440
Returned to claimants.				
Drift teak logs ...	7,355	278,490		
Other kinds, drift ...	109	3,815	7,464	282,305
Written off, lost, &c.				
Teak drift, logs... ...	52	1,976		
Other kinds	3	105	55	2,081
Converted locally.				
Pyingado logs	...	...	971	14,570
Transferred to depôts.				
Teak logs	23,736	1,240,330		
Other kinds, logs ...	1,400	49,000		
Pyingado posts ...	2,100	10,782		
Teak drift logs ...	1,279	47,602		
Other kinds ...	234	7,956	28,749	1,355,670
Closing balance.				
Agency—				
Teak logs	14,486	709,171		
Do. sleepers ...	65	97		
Thitka logs	40	2,000		
Other kinds, various ...	29	1,044		
Teak drift logs ...	596	24,153		
Other kinds, logs ...	3	105	15,219	736,570
Tharrawaddy—				
Teak logs	2,416	1,23,226		
Do., drift ...	28	1,064	2,444	124,290
Prome—				
Eng logs	222	6,770		
Theya and ingyin ...	290	8,952	512	15,722
Western—				
Kanyin	154	6,038		
Thitto	93	3,752		
In	580	23,862		
Pyingado	56	551		
Kyettuywe	6	252		
Thitpyu	8	456		
Teak drift	191	7,258		
Other kinds, drift ...	5	175	1,093	42,339
Rangoon—				
Kanyin	...	...	189	9,560
Toungoo—				
Teak logs	870	44,714		
Thitka	174	8,700		
Kanyin	23	920		
Pyinma	116	3,596		
Teak drift	59	2,242		
Other kinds, drift ...	8	280	1,250	60,452
Shwegyin—				
Teak logs	13	663		
Teak sleepers ...	3,000	4,500		
Other kinds, sleepers ...	24,000	36,000		
Drift teak	537	20,406		
Drift, other kinds ...	662	23,170	28,212	84,739
Total ...	...	...	223,867	4,020,478

Form No. 62.—*Abstract for British Burma.*

Particulars.	Tenasserim. Pieces. Number.	Tenasserim. Pieces. Cubic feet	Pegu. Pieces. Number.	Pegu. Pieces. Cubic feet.	British Burma. Pieces. Number.	British Burma. Pieces. Cubic feet.
To balance in hand at commencement of year	17,553	7,36,800	14,289	507,284	31,842	1,334,084
Received from forests by extraction.						
Teak logs	...	...	24,168	1,223,728	24,168	1,223,728
Do. sleepers	...	...	4,000	6,000	4,000	6,000
Other kinds, logs	...	...	5,223	157,710	5,223	157,710
Do., sleepers	...	...	23,000	34,500	23,000	34,500
Total ..	...	...	56,391	1,421,938	56,391	1,421,938
Received from forests in depôts.						
Teak logs	28,935	718,896	...	...	28,935	718,896
Other kinds, logs	4,174	195,396	...	...	4,174	195,396
Pyingado sleepers, large	2,040	7,081	...	...	2,040	7,081
Do. do. small	9,064	13,594	...	...	9,064	13,594
Other kinds, planks ... ... Tons	37	1,868	...	...	37	1,868
Do., scantlings ... ... ,,	21	1,055	...	...	21	1,055
Do., boat-hulls	7	454	...	...	7	454
Drift logs	5,446	242,579	...	...	5,446	242,579
Do. teak planks	5	36	...	...	5	36
Total ...	49,729	1,180,959	...	...	49,729	1,180,959
Received from forests and sold locally.						
Teak logs	14	420	1,605	75,248	1,619	75,668
Do. sleepers	...	...	19,870	29,805	19,870	29,805
Pyingado logs	...	...	40	1,200	40	1,200
Do. posts...	12	60	12	60	24	120
Other kinds, sleepers	..	...	75,310	112,965	75,310	112,965
Do., logs	110	2,815	244	24,335	354	27,150
Teak drift	543	21,180	289	10,982	832	32,162
Other kinds, drift	...	...	176	5,984	176	5,984
Total ...	679	24,475	97,546	260,579	98,225	285,054
Received by conversion locally.						
Pyingado scantlings		...	214	951	214	951
Do. tramway sleeper	...	...	10,500	12,760	10,500	12,760
Total ...	...	...	10,714	13,711	10,714	13,711

Particulars.	Tenasserim. Pieces. Number.	Tenasserim. Pieces. Cubic feet.	Pegu. Pieces. Number.	Pegu. Pieces. Cubic feet.	British Burma. Pieces. Number.	British Burma. Pieces. Cubic feet.
Removed by purchasers from depôts.						
Teak logs	30,349	792,993	17,734	685,693	48,083	1,678,686
Do. sleepers	...	...	14	21	14	21
Other kinds, logs	3,486	166,312	1,970	81,169	5,456	247,481
Do., scantlings ... ... Tons	200	10,034	27	25	227	10,059
Do., telegraph posts	...	...	1,982	10,282	1,982	10,282
Do., boat-hulls	3	50	...	...	3	50
Do., sleepers	11,558	21,907	6,868	10,356	18,426	32,263
Log ends	223	...	...	...	223	...
Teak drift, logs	2,731	123,328	399	12,802	3,070	136,130
Do., planks...	5	36	...	...	5	36
Other kinds, logs	...	...	503	17,102	503	17,102
Total ...	48,555	1,114,660	29,437	1,017,450	77,992	2,132,110
Sold locally.						
Teak logs						
Do. sleepers	14	420	1,605	75,248	1,619	75,668
Pyingado posts	...	...	19,870	29,805	19,870	29,805
Do. scantlings	12	60	12	60	24	120
Do. tramway sleepers	...	...	214	951	214	951
Other kinds, logs	...	...	10,500	12,760	10,500	12,760
Do., sleepers	110	2,815	284	25,535	394	28,350
Teak drift, logs	...	..	75,310	112,965	75,310	112,965
Other kinds, logs	543	21,180	289	10,982	832	32,162
	...	...	176	5,984	176	5,984
Total ...	679	24,475	108,260	274,290	108,939	298,765
Used by department.						
Teak logs	...	...	2	90	2	90
Other kinds	...	...	10	350	10	350
Total ...	...	...	12	440	12	440
Returned to claimants.						
Teak drift, logs ... ... } Other kinds, logs	2,554	112,055	7,355	278,490	...	...
			109	3,815	...	...
Total ...	2,554	112,055	7,464	282,305	10,018	394,360
Written off, lost, &c.						
Other kinds	68	574	...	...	68	574
Drift teak logs	...	...	52	1,976	52	1,976
Do. other kinds	...	...	3	105	3	105
Total ...	68	574	55	2,081	123	2,655

FORM No. 62.—*Abstract for British Burma*—(concluded).

Particulars	Tenasserim. Pieces. Number.	Tenasserim. Pieces. Cubic feet.	Pegu. Pieces. Number.	Pegu. Pieces. Cubic feet.	British Burma. Pieces. Number.	British Burma. Pieces. Cubic feet.
Received by conversion in depôts.						
Pyinma planks ... ... Tons	40	2,018	...	...	40 tons	2,018
Pyingado do. ... "	33	1,662	...	...	33 "	1,662
Thitka scantlings ... "	213	10,696	...	...	213 "	10,696
Pyingado sleepers, large	80	277	...	...	80	277
Log ends	223	...	...	...	223	...
Total ...	589	14,653	...	...	589	14,653
Drift collected in the various divisions and disposed of locally.						
Teak logs	..	...	7,510	295,380	7,510	295,380
Other kinds	..	...	619	21,046	619	21,046
Total	..	...	8,129	316,426	8,129	316,426
Number of logs entered in depôt during 1882-83.						
Foreign teak, logs	116,818	7,030,200	...	...	116,818	7,030,200
Ditto, other kinds	47	2,800	...	...	47	2,800
British teak, logs	8,655	216,375	...	...	8,655	216,375
Ditto, other kinds, logs ...	617	37,432	...	...	617	37,432
Total ..	126,137	7,286,807	...	...	126,137	7,286,807
Collected by Agency Division and received into depot.						
Other kind, sleepers	...	...	6,868	10,356	6,868	10,356
Do., scantlings	...	...	27	25	27	25
Teak drift	...	...	855	32,026	855	32,026
Other kinds, drift	...	...	62	2,282	62	2,282
Total ...	...	...	7,812	44,689	7,812	44,689
Received from forests by transfer into depots.						
Teak logs	...	...	24,085	1,243,111	24,085	1,243,111
Other kinds, logs	...	...	1,229	45,228	1,229	45,228
Ditto, telegraph posts	...	...	1,982	10,282	1,982	10,282
Teak drift, logs	...	...	1,081	43,228	1,081	43,228
Other kinds, logs	...	...	403	13,702	403	13,702
Total ...	...	...	28,780	1,355,551	28,780	1,355,551
Difference in transit—						
Teak logs	...	...	...	...	206	10,300
GRAND TOTAL	194,687	9,243,694	223,867	4,020,478	418,554	13,264,172

Particulars.	Tenasserim. Pieces. Number.	Tenasserim. Pieces. Cubic feet.	Pegu. Pieces. Number.	Pegu. Pieces. Cubic feet.	British Burma. Pieces. Number.	British Burma. Pieces. Cubic feet.
Converted locally.						
Pyingado logs	...	.	971	14,570	971	14,570
Converted in depôt.						
Other kinds, logs	518	24,594	..	...	518	24,594
Number of logs cleared up to date on payment of duty from depôts.						
Foreign teak	116,035	6,962,100	...	...	116,035	6,962,100
Do. woods, other kinds	53	3,180	...	...	53	3,180
British teak	7,076	137,425	...	...	7,075	137,425
Total ...	123,164	7,102,705	...	...	123,164	7,102,705
Transferred to depot.						
Teak logs	...	...	23,736	1,240,330	23,736	1,240,330
Other kinds	...	...	1,400	49,000	1,400	49,000
Pyingado posts	...	...	2,100	10,782	2,100	10,782
Teak logs, drift	...	...	1,279	47,602	1,279	47,602
Other kinds, drift...	..	...	234	7,956	234	7,956
Total ...	...	..	28,749	1,355,670	28,749	1,355,670
Closing balance.						
Foreign teak, logs	11,367	622,630	...	...	11,367	622,630
British teak, logs	1,840	93,974	17,785	877,774	19,625	970,848
Teak logs, sleepers	..	...	3,065	4,597	3,065	4,597
Other kinds, logs, foreign	9	485	...	...	9	485
Do., logs	1,426	61,525	1,980	76,448	3,406	137,973
Do., sleepers	2,399	7,508	24,000	36,000	26,399	43,508
Do., planks ... ... Tons	112	5,637	...	...	112	5,637
Do., scantlings ... ... "	44	2,229	1,411	55,123	44	2,229
Do., boat-hulls	4	404			4	404
Drift teak	1,948	...	678	23,730	...	..
Do., other kinds		71,139			4,037	149,992
Total ...	19,149	864,631	48,919	1,073,672	68,068	1,938,303
GRAND TOTAL ...	194,687	9,243,694	223,867	4,020,478	418,554	13,264,172

FORM No. 63.—*Timber and other produce cut, collected, and removed from the forests by consumers or purchasers during the year 1882-83.*

Division	Produce removed, Description		No or quantity	Amount of revenue	Amount actually realized during the year	Remarks
				Rs	Rs	
SALWEEN	Pyinma	Logs	866	1,187		
	Pyingado	"	137	146		
	Thingan	"	9	36		
	In	"	38	51		
	Petwun	"	3	6		
	Taukkyan	"	4	8		
	Ôkkan	"	16	30		
	Thitpyu	"	131	216		
	Teak crooks	"	5 336	1,314		From lease holders forests
	Teak stem pieces	"	100	61		
	Mangoe	"	241	363		
	Woods, other kinds	"		403		
	Taungban	No	3	3		
	Bamboos		1 300	3		
	Total		8,193	3,847	3,790	
EAST SALWEEN	Pyinma	Logs	1,921	3,853		
	Pyingado	"	590	110		
	Thingan	"	120	1 208		
	Thitpyu	"	305	572		
	Mangoe	"	688	1,271		
	Katawè	"	200	300		
	Thitpôk	"	14	13		
	Thitgado	"	2	21		
	Total		3 240	7,348	7,507	
WEST SALWEEN	Pyinma	Logs	365	1,004		
	Pyingado	"	38	51		
	In	"	20	21		
	Thingan	"	22	66		
	Thitpyoo	"	116	298		
	Mangoe	"	40	80		
	Total		601	1,460	1,368	
ATARAN	Pyinma	Logs	1,984	3,500		
	Pyingado	"	586	872		
	In	"	224	341		
	Thingan	"	252	1,191		
	Ôkkan	"	55	110		
	Thitpyu	"	142	270		
	Mangoe	"	595	1,061		
	Katawe	"	474	871		
	Kaunghmu	"	10	439		
	Ngvu posts	"	10	1		
	Panga	"	20	1		
	Katawè	"	10	1		
	Ingyin	"	22	14		
	Aukshinza	"	17	34		
	Bamboos	No	11 100	28		
	Total		15,501	8,764	8,749	
KADO	Teak crooks	Pcs	1 948	487		Lease holders forests
	Do	"	88	50		
	Tota		2 036	537	537	
SOUTH TEN ASSERIM, TAVOY	Karawo	Tons	357	1,077		
	Ditto	Logs	80	80		
	Kanazo	"	138	138		
	Ditto	Tons	8	51		
	Thingan	"	90	650		
	Ditto	Logs	21	11		
	Tadauk	Tons	3	14		
	Pyingado	"	33	154		
	Ditto	Logs	191	202		
	Ahan	Tons	8	17		
	Ditto	Logs	30	15		
	Kanyin	Tons	3	13		
	In	"	5	11		
	Pyinma	"	28	57		
	Ditto	Logs	3	4		
	Kadut	"	51	72		
	Kaunghmu	"	79	119		
	Tagu	"	140	170		
	Panga	"	21	32		
	Thitsho	"	31	46		
	Taungban	"	15	22		
	Kaban	"	25	31		
	Kyanzè	"	9	11		
	Tagat	"	22	25		
	Manthin	"	10	13		
	Yamane	"	13	11		
	Thitto	"	1	1		
	Chawaythoweh	"	10	4		
	Thitmin	"	18	19		
	Tharaphi	"	16	24		
	Ohe	"	4	5		
	Thitya	"	3	4		
	Kamaung	"	3	5		
	Myauklôk	"	3	4		
	Sit	"	2	3		
	Carried over			3,115		

FORM No. 63.—*Timber and other produce cut, collected, and removed from the forests by consumers or purchasers during the year 1882-83*—continued.

Division.	Produce removed. Description.		No. or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
				Rs.	Rs.	
	Brought forward	...	...	3,115	...	
SOUTH TENASSERIM, TAVOY,—concld.	Miyaungze	Logs	3	4	.....	*Deducting from Rs. 7,112, Rs. 84-11-3 and Rs. 703 charged in April as shown in last year's report and adding Rs. 716-8-0 made up of Rs. 149 for timber licenses, Rs. 7-8-0 for charcoal licenses, and Rs. 500 for wood-oil charged in April 1883, gives the revenue for the year Rs. 7,041.
	Pasiungo	"	1	2	.....	
	Taungkama	"	1	1	.....	
	Kaluka	"	2	2	.....	
	Other unreserved timber	"	1,296	1,779	.....	
	Charcoal		...	39	.....	
	Wood-oil		...	2,099	.....	
	Total	...	...	7,041	7,112*	
BAGUI ...	Reserved woods, tonnage dues ...	...	...	15	.....	†Deduct Rs. 11-12-6 and Rs. 1,749 included in last year's account from Rs. 4,049, and the Rs. 2,288 will be arrived at.
	Ditto felling fees ...	...	...	62	.....	
	Ditto duty ...	...	...	577	.....	
	Charcoal	...	...	2	.....	
	Firewood	...	...	7	.....	
	Wood-oil	...	...	1,625	.....	
	Total	...	...	2,288†	4,049	
	GRAND TOTAL	...	...	31,280	33,112	

FORM No. 63.—*Timber and other produce cut, collected, and removed from the forests by consumers or purchasers, including pasture, during the year 1882-83.*

Division.	Produce removed. Description.		No. or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
				Rs.	Rs.	
PROME ...	Felling fees on in trees ...	...	558	139	.....	
	Ditto pyinkado ...	...	305	153	.....	
	Ditto thitya ...	...	232	116	.....	
			C. feet.		.....	
	Tonnage on thitya ...	...	10,766	882	.....	
	Ditto on in ...	...	36,175	1,546	.....	
	Ditto refuse teak ...	...	8,440	1,818	...	
			No.		.....	
	Pass fee on Hlwazas and yathits ...	...	6,553	138	.....	
	Poles	...	30,970	699	.....	
	In pieces	...	1,447	1,202	.....	
	Refuse teak	...	91	395	.....	
	Thitya, short in pieces... ...	...	13,023	19,391	.....	
	Trade permits by civil department	...	...	2,640	.....	
	Charcoal	...	...	7	.....	
	Grazing fee	...	...	12	.....	
	Cutch permits, civil department, Thayetmyo		...	21,066	.....	
	Ditto ditto Prome	...	...	22,386	.....	
	Divisional offices	...	...	340	.....	
	Cart wheels	...	422	844	.....	
	Total	...	...	74,374	74,374	
THARRAWADDY ...	Teak trees	...	1,763	4,662	.....	
	Cutch trees	...	8,317	34,703	.....	
	Total trees	...	10,080	39,365	39,365	
	Teak logs	...	11	457	.....	
	Unreserved logs	...	3,380	4,812	.....	
	Total logs	...	3,391	5,269	5,269	
	Teak timber	C. ft.	5,013	1,400	.....	
	Kanyin do.	"	91,127	8,491	.....	
	Pyinma do.	"	11,018	894	.....	
	Thungan do.	"	1,479	160	.....	
	Unreserved do.	"	19,304	1,092	.....	
	Total	...	127,941	12,057	12,057	
	Unreserved poles	C. ft.	906	77	.....	
	Charcoal licenses	...	...	619	.....	
	Bamboos	...	1,210,978	3,033	.....	
	Grazing cattle	No.	201	127	.....	
	Cutch cauldrons	"	1,211	24,220	.....	
	Thatch bundles	"	25,919	453	.....	
	Shaw fibre	"	23,881	239	.....	
	Cigar leaves	Viss	4,506,800	225	.....	
	Kanyin-oil licenses	"	144	504	.....	
	Thitsi ditto	"	8	16	.....	
	In ditto	...	16	74	.....	
	Honey, ditto	...	4	34	.....	
	Thin	...	5	5	.....	
	Total	...	...	86,517	86,517	

FORM No. 63.—*Timber and other produce cut, collected, and removed from the forests by consumers or purchasers, including pasture, during the year 1882-83*—(continued.)

Division.	Produce removed. Description.	No. or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
			Rs.	Rs.	
WESTERN ...	Pyingado	7,162	6,170	.....	
	In	1,768	1,282	.....	
	Pyinma	33	99	.....	
	Felling fees, kanyin and kokeh	22	11	.....	
	Pyingado posts	3,410	434	.....	
	Ditto poles	7,709	84	.....	
	Thittya, nabé, panibo kyetto, didu, petwun, seikchi, kôkko, hmatchauk ingyin, taukyan	554	348	.....	
	Waif teak	9	90	.....	
	Bamboos	384,565	1,077	.....	
	Firewood and charcoal...	Permits.	330	.....	
	Cutch	"	150	.....	
	Total ...	...	10,015	10,015	
RANGOON ...	*Felling fees—*				
	In logs	72	18	.....	
	Pyingado	608	304	.....	
	Tonnage—				
	In logs ... ... C. feet.	7,720	7,426	.....	
	Pyingado logs	17,565	1,331	.....	
	Ditto	209		.....	
	Kanyin logs	346	1,278	.....	
	Prepaid license—	C. feet.		.....	
	Kanyin	806	100	.....	
	Teak logs license V*a*	39	460	.....	
	Realized under license VI	7,791	10,200	.....	
	Trade license for unreserved timber—				
	Boat-hull	1	30	.....	
	Pass fees	...	181	.....	Duty.
	Prepaid license—				
	Unreserved timber No. VII.... ...	10,745	10,060	.....	
	Small posts	470	13	.....	
	Pass fees	...	3	.....	
	Firewood charcoal	...	1,074	.....	
	Grazing dues	...	33	.....	
	Bamboos	731,965	1,882	.....	
	Minor produce—	Carts.			
	Theng	5	8	.....	
	Canes	2	2	.....	
	Salu	9	4	.....	
	Thetkè	77	23	.....	
	Shaw ... ... Viss	4,704	108	.....	
	Kanyin-oil	...	118	.....	
	Total ...	...	34,716	34,716	
TOUNGOO ...	*Felling fees—*				
	Thingan	24	12	.....	
	In	190	47	.....	
	Pyinma	144	36	.....	
	Pyingado	4	2	.....	
	Thingan (tonnage) ... ... C. feet.	575	92	.....	
	Pyinma	2,225	357	.....	
	Thingan sales	60	495	.....	
	In	145	237	.....	
	Pyinma	75	93	.....	
	Timber other kind to Public Works Department	...	181	.....	
	Unreserved woods	2	6	.....	
	Pyingado planks	21	26	.....	
	Telegraph Department pyingado posts ...	80	503	.....	
	Pyingado slabs	200	9	.....	
	Permit fees	...	25	.....	
	Unreserved logs	1,566	2,103	.....	
	Small posts	1,268	89	.....	
	Small poles	750	2	.....	
	Bamboos	...	11	.....	
	Charcoal	...	37	.....	
	Minor produce—				
	Eng-oil	...	2	.....	
	Dammer	...	16	.....	
	Kanyin-oil...	...	342	.....	
	Thitsi	...	643	.....	
	Cutch	...	2,020	.....	
	Canes	...	66	.....	
	Thetkè	...	1	.....	
	Honey	...	32	.....	
	Total ...	...	7,485	7,330	

FORM No. 63.—*Timber and other produce cut, collected, and removed from the forests by consumers or purchasers, including pasture, during the year 1882-83*—(concluded.)

Division.	Produce removed — Description	No. or quantity.	Amount of revenue.	Amount actually realized during the year	Remarks
			Rs.	Rs.	
SHWEGYIN.	*Felling fees—*				
	Pyingado	198	99	.....	
	Thingan, Theya, kanyin, kôkko and anan	18	9	.....	
	Pyinma and in	19	5	.....	
	Tonnage—				
	Pyingado	10,150	605	.....	
	Kanyin, kôkko, anan, in, thitya, pyinma	8,100	583	....	
	Boats-hulls, teak	1	55	.....	
	Thingan	2	2	.....	
	Pyinma	1	10	.....	
	Pyingado posts	8	40	.....	
	Refuse teak	39	1,156	.....	
	Teak scantlings	1,460	365	.....	
	Pyingado do.	19,340	1,246	.....	
	Unreserved woods	1,943	2,745	.....	
	Pass fees	16	16	.....	
	Small posts	1,395	99	.....	
	Small poles	900	2	.....	
	Charcoal	...	388	.....	
	Kanyin-oil	...	508	.....	
	Thitsi	...	406	.....	
	Total	...	8,339	8,339	
AGENCY	Pyingado duty	408	408	.....	Civil revenue at Akyab
	Unreserved woods	1	2	.....	
	Total	.	410	410	
	GRAND TOTAL	..	2,21,856	2,21,701	

FORM No. 64 [SUGGESTED].—*Statement showing the revenue derived and expenditure incurred on timber and other produce sold to public departments from depôts during the year 1882-83.*

Division.	Name of Department.	Particulars of supplies.	Amount supplied.				Rate		Amount of Revenue			Cost to Forest Department.			Comparison of Revenue and Expenditure.		Remarks.
							At	Per	Due.	Received.	Outstanding.	Timber expenses under AI.	Quota of all other expenditure chargeable against timber, &c.	Total.	Surplus.	Deficit.	
			Tons.	ft.	in.	p.	Rs. A. P.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
SALWEEN.	Gun-carriage Factory, Madras	94 logs padauk ...	62	39	6	7	130 0 0	Ton	8,163	8,163	...	14,157	1,111	15,268	10,472	...	
		37 do. ingyin ...	24	33	2	3	110 0 0	"	2,718	2,713	...						
		168 do. pyinma ...	156	23	2	1	95 0 0	"	14,864	14,864	...						
		Total ...	243	45	10	11	.....	...	25,740	25,740	...	14,157	1,111	15,268	10,472	...	
	Gun-carriage Factory, Bombay	25 logs padauk ...	18	25	11	5	125 0 0	Ton	2,315	2,315	...	1,554	150	1,704	611	...	
	Jail Department, Moulmein..	193 teak logs ...	172	35	0	0	7 8 0 to 31 0 0	Each	5,457	5,457	...	2,795	...	2,795	3,476	...	
		32 logs thitka ...	28	5	0	0	12 0 0	"	384	384	...						
		5 do. padauk ...	4	12	4	2	45 0 0	Ton	191	191	...						
		14 do. pyinma ...	8	20	0	0	12 0 0	Each	168	168	...						
		17 do. thitpyu ...	13	1	0	0	2 0 0	"	34	34	...						
		50 do. padauk log ends		.....			0 12 0	"	37	37	...						
		Total ...	226	23	4	2	.....	..	6,271	6,271	...	2,795	...	2,795	3,476	...	
	Executive Engineer, Moulmein	*Purchase-money*— 100 logs pyingado ...	53	18	10	0	4 8 0	Ton	240	240	...	...	...	...	240	...	
		Total Salween Division	542	14	0	6	.....	...	34,566	34,566	...	18,506	1,261	19,767	14,799	...	
KADO	Jail Department	28 teak logs ...	15	0	0	0	15 0 0	Each	420	420	...	...	161	161	259	...	
		Total Kado Division..	15	0	0	0	.....	...	420	420	...	...	161	161	259	...	
SOUTH TENASSERIM.	Telegraph Department, Tavoy	*Purchase-money*— 31 logs thingan ...	66	44	3	8	8 0 0	Ton	535	535	...	...	...	...	535	...	
		200 do. pyingado ...		.....			0 12 0	Each	150	150	...	...	...	...	150	...	
		100 do. pyinma ...		.....			0 12 0	"	75	75	...	...	...	...	75	...	
		Total ...	66	44	3	8	.....	...	760	760	...	...	...	...	760	...	
	Jail Department, Tavoy ...	3 teak logs ...	4	44	0	0	37 10 8	Each	113	113	...	54	...	54	59	...	
		Purchase-money— Padauk ...	3	9	7	10	4 8 0	Ton	14	14	...	...	...	...	14	...	
		Total ...	8	3	7	10	.....	...	127	127	...	54	...	54	73	...	
	Executive Engineer, Tavoy..	5 teak logs ...	7	15	2	0	48 12 9	Ton	244	244	...	91	...	91	153	...	
		Purchase-money— 44 logs pyinma ...	15	44	8	0	2 0 0	"	32	32	...	...	...	...	32	...	
		3 do. do ...		...			1 8 0	Each	4	4	...	...	...	...	4	...	
		110 do. pyingado ...		.....			2 0 0	"	220	220	...	...	...	...	220	...	
		2 do. kanyin ...	2	44	0	0	4 8 0	Ton	13	13	...	...	...	...	13	...	
		Total ...	26	3	10	0	.....	...	513	513	...	91	...	91	422	...	
		Total South Tenasserim Division ...	101	1	9	6	.....	...	1,400	1,400	...	145	...	145	1,255	...	
		Total Tenasserim Circle	658	15	10	0	.....	...	36,386	36,386	...	18,651	1,422	20,073	16,313	...	
														Deduct deficit ...	...		
														Balance for the Department ...	16,313		

FORM No. 64.—*Statement showing the revenue derived and expenditure incurred on timber and other produce sold to public departments from depôt during the year 1882-83.*

Division.	Name of department.	Particulars of supplies.	Amount supplied. No.	Amount supplied. Cubic feet.	Rate. At	Rate. Per	Amount of revenue. Due.	Amount of revenue. Received.	Amount of revenue. Outstanding.	Cost to the department. Timber expenses under AI, AIII	Cost to the department. Quota of all other expenditure chargeable against timber, &c.	Cost to the department. Total.	Comparison of revenue and expenditure. Surplus.	Comparison of revenue and expenditure. Deficit.	Remarks.
					Rs. A. P.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs	Rs.	
RANGOON.	R. & I. V. S. Railway	Refuse teak ...	103	5,700	45-46 0 0	Ton.	5.167	5,167	...	2,429	456	2,885	2,282	.	
		Ditto ...	24	1,450	..	...	1,334	1,334	...	631	116	747	587	...	
		Pyingado posts ...	...	140	10 0 0	...	28	28	...	...	4	4	24	...	
		Felling fees and tonnage on pyingado ...	112	...	...	...	83	83	...	...	...	...	83	...	
	Public Works Department ...	Pyingado posts ...	214	1,252	45-46 0 0	Ton.	1,140	1,140	...	...	50	50	1,090	...	
		Tonnage on pyingado	486	1,250	..	...	1,527	1,527	..	...	50	50	1,477	...	
	Telegraph ditto ...	Pyingado posts ...	11	77	4 8 0	Ton.	7	7	...	...	2	2	5	...	
		Total ...	950	9,869	...	...	9,286	9,286	...	3,060	678	3,738	5,548	...	
SHWEGYIN.	Telegraph Department	Pyingado	100	4,350	0 8 0	Each.	50	50	...	...	174	174	268	...	
		Do.	...	...	4 8 0	Ton.	392	392	...						
		Do.	200	...	1 0 0	Each.	200	200	...	...	...	...	200	...	
	Ex. Engineer, S. V. Railway	Do. sleepers ...	50,989	118,750	1 10 0	Each.	1,27,340	1,27,340	...	1,07,890	4,750	1,12,640	14,700	...	
		Teak do ..	19,870												
		Lèza do. ...	2,653												
		Taukkyan do. ...	4,851												
		Teak logs ...	19	596	50 0 0	Ton.	596	596	...	...	48	48	548	...	
		Total ...	78,682	123,696	...	...	1,28,578	1,28,578	...	1,07,890	4,972	1,12,862	15,716	..	
TOUNGOO.	R. & S. V. Railway	Teak logs	150	2,102	26 2 5	Each.	3.916	3,916	...	325	84	409	3,507	...	
	Ex. Engineer, Shwegyin ...	Ditto	495	25,335	56 10 6	...	28,043	28,043	...	5,999	2,004	8,003	20,040	...	
		Ditto	100	3,672	41 5 11	...	4,137	4,137	...	953	146	1,099	3,038	..	
	Ex. Engineer, Toungoo	Teak posts ...	...	167	10 0 0	Tons.	33	33	...	...	...	...	33	...	
		Pyinma	...	1,463	2 8 0	...	73	73	...	...	25	25	48	...	
		Do.	1	35	20 0 0	...	14	14	...	6	1	7	7	...	
		Various	...	...	...	...	107	107	...	.	39	39	68	...	
	Superintendent, Telegraph..	Pyingado posts ...	80	5,584	4 8 0	...	502	502	...	...	222	222	280	...	
	R. & S. V. S. Railway ...	Sleepers	16,817	25,275	1 10 0	Each.	27,327	27,327	...	20.932	1.010	21,942	5,385	...	
		Total ...	17,643	63,633	...	...	64,152	64,152	..	28,215	3,531	31,746	32,406	...	
WESTERN.	Bassein Jail ...	Kashit	401	1,659	22 0 0	Ton.	7,310	7,310	...	2,807	66	2,873	4,437	...	
		Kyeinbo and kôkka ...	39	2,588	18 0 0	...	932	932	...	273	102	375	557	...	
	Telegraph, Prome ...	Pyinkado posts ...	20	337	4 8 0	.	30	30	...	...	12	12	18	...	
	Ditto, Bassein	Ditto ...	34	...	9 8 0	Each.	323	1,096	...	272	34	306	17	...	
		Ditto ...	91	...	8 8 0	...	773			637	91	728	45	...	
		Ditto ...	20	225	4 8 0	Ton.	20	20	...	...	8	8	12	...	
	Ex. Engineer, Henzada	Drift teak	6	400	50 0 0	...	426	426	...	18	32	50	376	...	
		Ditto	5	180	45 0 0	...	162	162	...	15	12	27	135	...	
	Ditto, Bassein	Kashit & thingan ...	25	910	25 0 0	...	455	455	...	175	36	211	244	...	
		Kyeinbo & kyaungdauk	7	214	17 8 0	...	75	75	...	49	8	57	18	...	
		Total ...	648	6,513	...	...	10,506	10,506	..	4,246	401	4,647	5,859	...	

PROME.	Executive Engineer ...	Teak logs ...	9	521	65 0 0	Ton.	808	808	...	115	48	163	645	...	
		Ditto ...	1	99											
		Ditto ...	1	117	...	...	152	152	...	13	8	21	131	...	
		Ditto ...	...	150	35 0 0	...	105	105	...	13	12	25	80	...	
		Ditto ...	4	...	...	...	70	70	...	...	8	8	62	...	
	Telegraph Department ...	Pyingado ...	40	...	1 0 0	Each.	40	40	...	...	...	...	40	...	
		Total ...	55	887	...	...	1,175	1,175	...	141	76	217	958	...	
THARRA-WADDY.	Executive Engineer ...	Pyingado ...	120	2,081	5 0 0	Ton	208	1,882	...	...	82	82	126	...	
		Teak ...	2	104	60 0 0	...	685				41	41	641	...	
		Do. ...	10	466											
	Ditto. S. V. S. Railway ...	Do. ...	8	582	85 0 0	...	989				41	41	945	...	
		Total ...	140	3,233	...	...	1,882	1,882	...	...	170	170	1,712	...	
AGENCY.	Store-keeper, R. & S. V. S. Railway.	Dugyis (I) ...	7	413	...	...	763	763	...	98	32	130	633	...	
		Hlwazas ...	493	27,140	...	...	44,226	44,226	...	4,930	2,166	7,096	37,130	...	
		Pyingado sleepers ...	2,442	3,663	...	...	4,579	4,579	...	4,578	146	4,724	...		145
	Executive Engineer, Head-quarters Division, R. & S. V. S. Railway.	Dugyis (I) ...	161	10,444	...	...	19,459	19,459	...	1,932	832	2,764	16,695	...	
		Do. (II) ...	78	4,992	...	...	6,400	6,400	...	780	396	1,176	5,224	...	
		Hlwazas ...	82	3,969	...	...	6,487	6,487	...	820	316	1,136	5,351	...	
		Yathits ...	42	1,473	...	...	2,198	2,198	...	252	292	544	1,654	...	
		Yard-pieces ...	11	1,171	...	...	2,366	2,366	...	220	92	312	2,054	...	
	Engineer-in-Chief, R. & I. V. S. Railway.	Pyingado sleepers ...	4,384	6,630	...	...	8,220	8,220	...	8,298	268	8,566	...		307
		Ditto ...	42	63	...	...	39	39	...						
	Superintendent, Central Jail, Rangoon.	Dugyis (I) ...	85	5,807	...	...	8,266	8,266	...	1,020	464	1,484	6,782	...	
		Ditto (II) ...	464	25,984	...	...	24,706	24,706	...	4,640	2,076	6,716	17,990	...	
		Hlwazas ...	232	14,110	...	...	17,259	17,259	...	2,320	1,128	3,448	13,811	...	
		Yathits ...	31	1,227	...	...	1,612	1,612	...	186	100	286	1,326	...	
		Pyinma ...	97	3,204	...	...	1,923	1,923	...	192	128	320	1,603	...	
	Director-General, Telegraphs	Pyingado T. posts ...	1,974	10,240	...	...	21,714	21,714	...	1,974	408	2,382	19,332	...	
	Industrial Arts Institute	Hlwazas ...	8	515	...	...	834	...	834	80	80	160	664	...	
		½ profit principle ...	41	1,497	...	...	1,797	...	1,797	123	46	169	1,628	...	
		Total ...	10,674	1,22,662	...	...	1,72,838	1,70,217	2,621	33,443	8,970	41,413	1,31,877		452
		Total Pegu Circle ...	...	...	...	...	3,88,417	3,85,796	2,621	1,75,995	18,798	1,94,793	1,94,076	...	
		GRAND TOTAL B. B. ...	...	...	...	...	4,24,803	4,22,182	2,621	1,94,646	20,220	2,14,866	2,10,389	...	
												Deduct deficit ...	452		
												Credit balance ...	2,09,937		

FORM No. 65.—*Abstract showing the value of timber and other produce at sale depôts for the year 1882-83.*

Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.		Remarks.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favour of the year.	Against the year.	
Timber.			Rs.			Rs.	Rs.	Rs.	
Logs, teak	1,419	74,421	61,726	1	101	250	...	61,476	
Drift logs, teak	1,787	63,943	25,018	1,948	71,139	39,934	14,916	...	
Logs, woods of other kinds	649	19,912	8,934	799	24,262	11,217	2,283	...	
Sleepers	2,827	8,650	7,369	2,399	7,508	6,483	...	886	
Scantlings	...	601	682	156 tons.	7,866	4,810	4,128	...	
Total Tenasserim Timber Stock ...	6,682	167,527	1,03,729	5,303	1,10,876	62,694	21,327	62,362	
Live stock	4	...	5,000	4	...	4,800	...	200	
Buildings	21	...	21,671	21	...	19,504	...	2,167	
Dead stock	...		6,026	...	...	11,337	5,311	...	
Total Tenasserim Live and Dead Stock ...	25	...	32,697	25	...	35,641	5,311	2,367	
Logs, teak	11,672	485,562	3,19,080	19,183	9,32,897	5,82,100	2,63,020	...	
Sleepers, teak	79	118	120	3,065	4,597	4,900	4,780	...	
Logs, other kinds	2,528	111,504	25,280	2,671	1,00,178	39,300	14,020	...	
Sleepers, other kinds	...	...	...	24,000	36,000	39,000	39,000	...	
Total Pegu Timber Stock ...	14,279	597,184	3,44,480	48,919	10,73,672	6,65,300	3,20,820	...	
Live stock	36	...	45,800	* 38	...	46,800	1,000	...	* Includes a calf.
Buildings	40	...	52,500	† 46	...	53,000	500	...	† Rest-houses in Hanthawaddy, Toungoo, and Shwegyin included.
Dead stock	...	...	23,400	...	...	27,750	4,350	...	
Total Pegu Live and Dead Stock ...	...	...	1,21,700	...	...	1,27,550	5,850	...	
GRAND TOTAL BRITISH BURMA ...	...	...		...	...	1,63,191	11,161	2,367	

N B.—In the Pegu Circle by a clerical error the live stock, buildings, and dead stock were made to show Rs. 6,281 as in favour of the year and Rs. 4,420 against the year. The correct figures should have been Rs. 13,100 in favour and Rs. 100 against 1881-82.

APPENDIX A (1).

British Burma.

Statement exhibiting the cost of feed and keep of elephants of the Forest Department for the official year 1882-83 as compared with that of the Commissariat Department for the same period.

Division.	Number of elephants at commencement of year.	Casualties during year.	Number of elephants at close of year.	Cost of feed.	Cost of keep including gear.	Cost of medicines.	Total expenditure for the year.	Average monthly cost per animal of the Forest Department.	Average monthly cost per animal of the Commissariat Department.	Amount paid by officers for carriage elephants.	Value of labour in cash receipts and work performed.	Remarks.
				Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.	
Salween	2		2	772 12 0	624 0 0	43 4 0	1,442 0 0	60 1 4	34 8 11	...	2,713 12 0	In the abstract of expenditure only Rs. 1,414-11-3 is shown as expended during the year for feed and keep of elephants under AVI*b*, whereas in this statement Rs. 1,727-3-3 is shown: the difference is the value of paddy purchased charged in 1881-82 but on which the elephants have been fed during 1882-83.
East Salween	2	1	1	.....	268 3 3	3 0 0	271 3 3	22 9 7		...	436 0 0	
West Salween...			1	.....	14 0 0	.....	14 0 0	14 0 0		...	148 0 0	
Total Tenasserim Circle ...	4	1	4	772 12 0	906 3 3	46 4 0	1,727 3 3	96 10 11	34 8 11	...	3,297 12 0	
Tharrawaddy	8 and 1 calf		8 and 1 calf	15 8 0	2,325 7 10	127 9 7	2,468 9 5	34 5 0	35 6 3	...	7,161 0 0	
Rangoon	4	1	4	4 0 0	973 1 3	11 9 0	988 10 3			...	2,196 0 0	
Prome	2	2	1	4 13 6	493 11 9	9 8 0	508 1 3			...	656 0 0	
Toungoo	3	..	7	.....	1,836 5 7	26 11 0	1,863 0 7			...	680 0 0	
Agency	10	2	12	1,987 1 3	5,201 6 4	215 1 6	7,403 9 1			...	11,960 0 0	
Western	3	.....	3	51 0 0	893 3 0	8 0 0	952 3 0			...	2,668 0 0	
Shwegyin	3	.....	2	.....	650 10 0	8 2 0	658 12 0			...	756 0 0	
Arakan	2	1	.....	.....	.....	...	...			...	.....	
Total Pegu Circle	35 and 1 calf	6	37 and 1 calf	2,062 6 9	12,373 13 9	406 9 1	14,842 13 7	34 5 0	35 6 3	...	26,277 0 0	
Total British Burma ...	39 and 1 calf	7	41 and 1 calf	2,835 2 9	13,280 1 0	452 13 1	16,570 0 10	.....	.....	...	29,574 12 0	

APPENDIX B.

British Burma.

List of buildings of which the cost exceeds Rs. 200.

Division.	No.	Name of building.	Station.	Remarks.
Salween ...	1	Forest office	Moulmein.	
	1	Elephant-shed ...	Ditto.	
	1	Paddy-shed ...	Ditto.	
East Salween	1	Bungalow ...	Kawkareik.	
	1	Rest-house ...	Kya In on the Haungdraw.	
West Salween ...	1	Bungalow ...	Papun.	
Ataran ..	1	Rest-house ...	Natchaung.	
Kado	1	Guard-house ...	Martaban.	
	4	Guard-houses ...	Moulmein	
	3	Offices and two outhouses ...	Kado.	
	1	Lascar's house ...	Do.	
	1	Upper guard-house ...	Do.	
	1	Lower guard-house ...	Do.	
	1	Ditto ..	Nante.	
South Tenasserim	1	Office ...	Mergul.	
	1	Guard-house ...	Tavoy.	
		(a)—On which no rent is paid.		
Depôt and agency	1	Central depôt ...	Kemmendine, Rangoon	
	1	Overseer's quarters ...		
	6	Guard-houses ...		
	4	Mahouts' houses ...		
	1	Elephant-shed ...		
	1	Seasoning-shed		
Prome ...	2	Rest-houses ...	Kadinagasin, Tounggalay.	
Rangoon ...	2	Forest bungalows ..	Palôn, Kimpadie ...	Formerly shown as at Magayi.
	3	Revenue stations ...	Taulatch, Awaing, Hlebgu ..	Station-houses at Kyazu and Zoungtu dilapidated and struck off; old materials sold and credited
	1	Forest office ...	Pegu.	
Tharrawaddy ...	1	Store-house ...	Kangyi.	
	1	Forest office ...	Tharrawaddy.	
	1	Ditto ...	Paungdè.	
	9	Rest-houses ...	Kangyi, Juxaing, Gyobinaing, Seingalay, Bawbin, Waing, Sanyway, Kwaymabing, Kaunglaungdine.	
Toungoo ...	1	Forest office ...	Toungoo.	
	5	Rest-houses ...	Pyun, Zibyubin, Tabetkweh, Pathichaung, Bamb waybin.	
Shwegyin	1	Forest office ...	Shwegyin.	
	1	Rest-house ...	Myitkyo.	
	1	Overseer's quarters	Do.	
	1	Bungalow ..	Chaungzauk	Made over by Public Works Department.
		(b)—On which rent is paid		
Prome ...	1	Forest office ...	Prome ...	At Rs. 18-8-0 per month.
Tharrawaddy ...	1	First class bungalow ...	Tharrawaddy ...	At Rs. 45 per month.

APPENDIX C (1).

TENASSERIM CIRCLE.

Statement showing the exports of teak timber during 1882-83 from Moulmein.

PORTS.	From Moulmein.			From Tavoy.		
	Logs.	Cubic tons.	Value.	Logs.	Cubic tons.	Value.
			Rs.			Rs.
United Kingdom	...	37,200	38,90,480	...	...	...
Prussia (Dantzic)	...	550	52,282	...	...	...
Prussia (Kiel)	...	374	35,532	...	...	...
Spain (Gibralter)	...	1,085	1,44,785	...	...	...
Cape of Good Hope	...	1,107	1,19,192	...	...	...
Egypt (Port Said)	...	19	1,721	...	...	...
Mauritius	...	20	2,402	...	...	...
Ceylon	...	837	66,957	...	...	...
Siam	...	43	2,100	...	...	...
Straits Settlements	...	226	22,660	...	...	...
Sumatra	...	860	1,05,000	...	...	...
Victoria	...	785	91,098	...	...	...
Bengal (Calcutta)	...	20,301	24,56,214	...	...	...
Do. (other ports)	...	496	51,077	...	...	...
Bombay	...	27,403	21,98,071	...	...	...
Madras (Madras)	...	7,769	6,14,312	...	...	...
Do. (other ports)	...	1,322	95,398	...	...	...
Provincial ports	...	1,621	1,38,288	...	...	...
Pondicherry...	...	621	49,100	...	...	...
Total ...	...	111,648	1,01,37,354	...	...	...
Calcutta provincial ports	...	...	...	726	26,540	...
Total ...	...	...	...	726	26,540	...
Total Tenasserim Circle ...	...	111,648	1,01,37,354	726	26,540	...

APPENDIX C (2).

TENASSERIM CIRCLE.

Statement showing the exports of shingles, sleepers, railway keys, and woods of other kinds in 1882-83.

Articles.	Whither exported.	From Moulmein.		From Rangoon.	
		Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.
Other timber ... Tons.	United Kingdom	11	600	...	...
	Bengal (Calcutta)	2,084	1,54,418	...	...
	Do. (other parts)	17	1,160	...	...
	Bombay	122	6,377	...	...
	Madras	282	24,678	...	...
	Do. (other ports)	9	191	...	
	Provincial ports	1,805	65,353	...	...
Teak shingles ... No.	Mauritius	2,229,000	46,364	...	...
	Straits Settlements ...	144,000	2,504	...	...
	Bengal (Calcutta)	261,900	4,249	...	...
	Provincial ports	3,880,900	65,111	...	...
Teak heads and staves Tons.	Bengal (Calcutta)	40	3,209	...	...
Railway keys (teak) Cwts.	Ditto	7,152	21,726	...	...
	Bombay (Bombay)	3,810	10,152	...	...
Railway blocks (teak) „	Provincial ports	14	60	...	
Sleepers, pyinma „	Bengal (Calcutta)	3	12	...	
Do., pyingado „	Ditto	183	780	...	...
	Provincial ports	172	366	...	...
Do., ditto Tons.	Calcutta and Rangoon	...	...	344	11,684
Scantlings, pyingado „	Rangoon	...	...	6	204
Kanwe ... Tons.	Provincial ports	...	...	1	54
Kanazo .. „				183	5,567
Manthin .. „				4	120
Pyn wood ... „				3	18
Thitka ... „				123	5,002
Teak ... „				61	3,854
Thitsho ... „				1	37

APPENDIX C (3).

TENASSERIM CIRCLE.

Statement showing the exports of minor forest produce during 1882-83 from the ports of Tavoy and Moulmein.

Articles.	Whither exported.	From Moulmein.		From Tavoy.	
		Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.
Gums and resins—Cutch and gambier.	Madras (other ports) ... Cwt.	3	68	...	...
Lac, stick	Provincial ports ... ... Cwt.	147	2,625	...	...
Wood-oil	Bombay ... ...Galls.	54	55	...	...
	Madras ... ... "	2,269	1,906	...	...
	Madras (other ports) ... "	1,600	1,550	...	...
	Provincial ports ... ... "	2,000	1,630	...	...
Bark of trees	.... Cwt.	...	...	1,615	2,675
Sandlewood	.... "	...	...	1	3
Firewood	....Tons	...	...	4	6
Cardamoms	.... lbs.	...	...	28,035	6,923
Dammer torches ...	.... No.	...	...	1,000	25

APPENDIX C (4).

TENASSERIM CIRCLE.

Statement showing the imports of timber and other forest produce during the year 1882-83 into the ports of Tavoy and Moulmein.

Articles.	Whence imported	Into Moulmein.		Into Tavoy.	
		Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.
Wood, teak	Provincial ports ... Tons	85	5,360	...	...
Other timber	Straits Settlements ... Tons	3	80	...	...
	Provincial ports ... "	295	11,531	...	...
	Total ...	298	1,161	...	...
Firewood	Siam	4	76	...	...
	Straits Settlements	5	75	...	...
	Total ...	9	151	...	...
Sandalwood	Bengal (Calcutta) ... Value	...	2,293	...	...
	Madras (other ports) ... "	...	2	...	...
	Provincial ports	...	8	...	...
	Total ...	...	2,303	...	...
Gum and resins—Cutch and gambier.	Provincial ports ... Cwt.	234	5,529	...	...
Wood-oil	Straits Settlements ... Galls.	35	80	...	...
	Provincial ports ... "	2,562	2,245	...	...
	Total ...	2,597	2,325	...	...
Teak timber	Provincial ports ... Tons	...	...	16	975
Sandalwood	.... Cwt.	...	...	128	314
Wood-oil	Provincial ports ... Galls.	...	...	4,748	995
Firewood	.... Tons	...	...	174	643
Bark of trees	.... Cwt.	...	...	22	15
Fibre for cordage ...	.... "	...	...	22	65
Dammer for torches ...	.... No.	...	...	4,750	119
	Total ...	...	...	...	3,126

APPENDIX C (1).

PEGU CIRCLE.

Statement showing the exports of teak timber during the official year 1882-83 from the ports of Rangoon and Moulmein.

Whither exported.	From Rangoon. Cubic tons.	From Rangoon. Value.	From Moulmein. Cubic tons.	From Moulmein. Value.
		Rs.		Rs.
To United Kingdom ...	12,881	12,72,875	37,209	38,90,480
„ France—Marseilles ..	5	500	...	..
„ Germany—Gustemunde	7	910	...	.
„ Holland ...	3	450	...	...
„ Malta ...	25	2,500	...	...
„ Prussia—Dantzic ...	...	...	550	52,282
Do. —Kiel ..	...	...	974	35,532
„ Spain—Gibraltar ...	...	...	1,085	1,44,785
„ Cape of Good Hope ..	...	...	1,107	1,19,192
„ Egypt—Port Said ...	196	20,400	19	1,721
„ Mauritius ...	...	...	20	2,402
„ Ceylon ...	530	51,950	837	66,957
„ Siam ...	3	325	43	2,100
„ Straits Settlements ...	128	14,480	226	22,660
„ Sumatra ...	...	...	860	1,05,000
„ South America—Callao	3	300	...	...
„ Victoria ...	1,250	1,25,000	785	91,098
„ Bengal—Calcutta ...	12,767	12,70,234	20,901	24,56,214
„ Do. —Other Ports ...	117	10,959	496	51,077
„ Bombay—Bombay .	7,708	7,51,800	27,403	21,98,671
„ Madras—Madras .	2,653	2,59,421	7,769	6,14,312
„ Do. —Other ports	911	91,075	1,322	95,308
„ Provincial ports .	316	30,077	1,621	1,38,283
„ Pondicherry ...	...	...	621	49,190
Total ...	39,503	39,09,256	111,648	1,01,37,354

APPENDIX C (2).

PEGU CIRCLE.

Statement showing the exports of manufactures of teakwood, &c., during 1882-83, from Rangoon and Moulmein, and the exports of other timber, firewood and sandalwood.

Articles.	Whither exported.	From Rangoon. Quantity.	From Rangoon. Value.	From Moulmein. Quantity.	From Moulmein. Value.
			Rs.		Rs.
Teak shingles ... No.	Mauritius ...	...	..	2,229,000	46,364
	Straits Settlements ...	...	...	144,000	2,504
	Bengal—Calcutta ...	...	...	261,900	4,249
	Provincial ports ...	5,400	144	3,880,900	65,111
Wooden sleepers (of teak and other timber)... Cwt.	Bengal—Calcutta ...	1,300	3,400	486	792
	Madras—Madras ...	10	60	...	...
Railway keys (teak)... Cwt.	Bengal—Calcutta ...	...	...	7,152	21,726
	Bombay ...	...	...	3,810	10,152
Teak heads and staves ... C. tons...	Bengal—Calcutta ...	...	...	40	3,209
Blocks (teak) ... Cwt	Ditto ...	...	..	.	..
Firewood ... Tons...	Provincial ports ..	...	...	150	1,120
Sandal-wood ... Value	Bengal—Calcutta ...	...	240	...	..
	Provincial ports ...	...	110	...	..
Other timber, (*i.e.*, timber other than teak) ... Tons	United Kingdom ...	...	...	11	606
	Bengal—Calcutta ..	485	47,740	2,684	1,54,418
	Bengal—Other ports ...	15	1,125	17	1,160
	Bombay—Bombay ...	...	...	99	4,065
	Madras—Other ports	3	100	9	191
	Provincial ports ...	4	132	1,805	65,353

APPENDIX C (3).

PEGU CIRCLE.

Statement showing the exports of other forest produce from the ports of Rangoon and Moulmein during 1882-83.

Articles.	Whither exported.	From Rangoon. Quantity.	From Rangoon. Value.	From Moulmein. Quantity.	From Moulmein. Value.
			Rs.		Rs.
Gums and resins—Cutch and gambier. Cwt.	United Kingdom	140,151	18,34,145	...	...
	Egypt (Port Said)	26,460	3,35,528	...	...
	St. Helena	23,000	2,57,600	...	...
	Ceylon	1,300	21,199	...	...
	Straits Settlements ...	8,858	94,246	...	...
	Bengal—Calcutta	37,997	4,90,709	...	...
	Do.— Other ports	46	831	...	...
	Bombay—Bombay	28,036	4,16,095	...	...
	Madras—Madras	3,484	66,358	.	...
	Do.— Other ports	1,108	19,378	3	68
	Provincial ports	223	4,574	...	...
Lac, stick .. Cwt.	United Kingdom	427	10,000	...	...
	Straits Settlements	218	3,988	...	...
	Bengal—Calcutta	1,838	36,425	...	...
	Madras—Madras	1,154	24,073	..	..
	Do.— Other ports	608	12,018	...	...
	Provincial ports	29	695	147	2,625
Oils, wood ... Galls.	United Kingdom	5,008	4,933	...	...
	Bengal—Calcutta	980	1,000	...	...
	Bombay—Bombay	...		54	55
	Madras—Madras	7,604	6,124	2,269	1,906
	Do.— Other ports	3,433	3,699	1,600	1,550
	Provincial ports	...	...	2,000	1,630

APPENDIX C (4).

PEGU CIRCLE.

Statement showing the imports of timber and other forest produce into the ports of Rangoon and Moulmein during 1882-83.

Articles.	Whence imported.	Into Rangoon. Quantity.	Into Rangoon. Value.	Into Moulmein. Quantity.	Into Moulmein. Value.
			Rs.		Rs.
Wood, teak .. Tons	Straits Settlements	8	849	...	...
	Bengal—Other ports	1	80	...	..
	Provincial ports	1,825	1,42,005	85	5,380
Other timber .. Tons	United Kingdom	47	1,086	...	...
	Straits Settlements ..	101	4,243	3	80
	Bengal—Other ports	3	160	...	...
	Provincial ports	1,462	62,944	295	11,531
Firewood ... Tons	Siam	...	...	4	76
	Straits Settlements	277	1,820	5	75
	Bengal—Other ports	38	300	...	...
	Provincial ports	163	1,400	...	...
Sandalwood ... Value	Straits Settlements	...	6,718	...	...
	Bengal—Calcutta	..	4,760	...	2,293
	Bombay—Bombay	...	7,986	...	...
	Madras—Madras	...	270	...	...
	Do.— Other ports	...	..	...	2
	Provincial ports	...	1,034	...	8
Teak shingles .. No.	Provincial ports	3,377,900	55,897	...	...
Sleepers ... Cwt.	Provincial ports	6,039	9,869	...	...
Gums, &c.,—Cutch and gambier. Cwt.	Bengal—Calcutta	290	2,346	..	...
	Provincial ports	...	...	234	5,529
Lac, stick ... Cwt.	Straits Settlements	180	2,700	...	...
Oil, wood ... Galls.	Straits Settlements	639	922	35	80
	Provincial ports	10,488	7,324	2,502	2,245

APPENDIX D.

TENASSERIM CIRCLE.

Statement of teak and other trees girdled and forest work done in season 1882-83.

Name and No. of section.	By whom girdled.	Name of revising officer.	Forest district.	Locality.	Teak trees girdled.	Padauk trees girdled.	Trees counted by revising officer.	Taukkyan trees girdled.	Pyinma trees girdled.	Ingyin trees girdled.	Potwun trees girdled.	Thingan trees girdled.	Remarks.
1	San Mi, forester ...	...	Lower Thaungyin Mithawe reserve ...	Between the Mithawe and Thipawkaw streams ...	200	...	...	...	...	...	...	...	The figures, &c., in this statement relating to the Mithawe reserve are subject to correction, being based on local information obtained by the Conservator consequent on the omission of the Divisional Officer to obtain detailed information from his subordinates.
2	Shwe Aung, forest ranger	...		Sources of the Buthothi stream	400	...	...	...	...	...	...	...	
				Along path between the Thipawkaw stream and mouth of Delaw stream	50	...	...	...	...	...	...	...	
				Delaw west ridge	371	...	...	...	...	...	...	...	
3	Maung Shwe Ba, forester ...	...	Haungdaraw ...	Sôntman and Haungdaraw streams	...	150	...	...	...	...	...	...	
			Ditto ...	Ansa stream	564	...	...	...	...	...	...	...	
			Ditto ...	Kyeik stream	...	...	...	...	1,000	...	...	...	
			Lower Thaungyin ...	Upper portion of Tabaluwa stream	158	...	...	...	...	...	...	...	
			Ditto ...	Upper portion of Kannut stream	331	...	...	...	...	...	...	...	
4	Maung Tu, girdling gaung	Mr. H. B. Ward, Assistant Conservator of Forests, and Moung Po Too, Forest Ranger ...	Lower Dôndami ...	On west bank of Dôndami stream above the mouth of Dawson stream	...	...	...	...	27	...	...	...	
			Ditto ...	On west bank of Tagelaung stream	...	...	...	...	74	...	...	...	
			Ditto ...	On both banks of Tipau stream	...	...	325	...	123	...	...	...	
			Ditto ...	On Yewaing stream	...	...	...	13	9	...	...	...	
			Ditto ...	Source of Tanetkiobar stream	...	...	...	...	70	...	...	...	
			Ditto ...	On west bank of Pyinmabinzeik stream near mouth ...	...	...	...	40	...	...	...	...	
			Ditto ...	Along west bank of Pyinmabinzeik stream	...	...	...	10	...	...	...	...	
			Ditto ...	On east bank of Tagelaung stream	...	...	...	94	...	...	...	...	
			Ditto ...	On Takolan stream	...	...	...	53	...	...	...	...	
5	Government contractor	Mr. H. B. Ward, Assistant Conservator of Forests ...	Upper Salween ...	Near bank of Natchaung	131	...	...	...	...	...	...	...	
			Ditto ...	On Kolawklo stream	63	...	...	...	...	...	...	...	
			Ditto ...	On Tachakalo stream	107	...	...	...	...	...	...	...	
			Ditto ...	On Itto stream	110	...	..	...	...	...	...	...	
			Ditto ...	On Kolobola stream	61	...	...	...	...	...	...	...	
			Ditto ...	On Upè stream	21	...	...	...	...	...	...	...	
			Ditto ...	On Yoko stream	45	...	...	...	...	...	...	...	
6	Maung Su, forester...	Mr. T. H. Aplin, Deputy Conservator of Forests ..	Tavoy ...	From Keinyèdaung village to about one mile below, along the banks of the Kalan stream	...	...	234	...	300	...	...	...	
			Do. ...										
			Do. ...	From the Kwethalin stream to the mouth of the Kaleinbôk along the Kaleinaung stream	...	...	55	...	..	...	...	100	
7	Girdling gaung ...	Mr. J. C. Murray, Assistant Conservator of Forests ...	Ataran ...	Between Natchaung reserve and Kyat stream ...	...	43	...	...	...	1	46	...	
			Do. ...	Between Kwingale and Kayinthaw streams	...	76	...	...	...	21	20	...	
			Do. ...	Between Natchaung reserve and Kwingale stream ...	...	.	...	...	...	...	17	...	
			Do. ...	Between Natchaung village and Natchaung reserve ...	...	4	...	...	...	12	...	...	
			Do. ...	On Tipomine stream (tributary) of Natchaung ...	...	7	...	...	...	...	...	...	
			Do. ...	On Thawakelet stream (tributary) of Natchaung ...	...	...	...	...	...	15	...	...	
			Do. ...	Sources of Natchaung	...	...	...	...	...	16	...	...	
			Do. ...	Between Natchaung and Kakat streams	...	...	186	...	...	20	...	...	
			Do. ...	Between Kyetôk and Kwingale streams	...	...	...	...	...	6	51	...	
			Do. ...	On Kyetsat and Kwingale streams	...	...	...	...	441	...	15	82	
			Do. ...	On Tipopetthaw (tributary) of Kwingale	...	6	...	...	25	11	...	...	
			Do. ...	On Tipodethaw stream, tributary of Kwingale ...	...	...	...	...	...	7	...	...	
			Do. ..	On Tipokathi stream, tributary of Kwingale ...	...	...	...	...	...	14	...	...	
			Do. ...	Aitmalway stream, tributary of Kwingale	...	6	...	...	...	...	...	18	
			Do. ...	Near Donu and Ile villages	...	...	...	...	30	...	...	...	
			Do. ...	On Kyaukpan stream	...	8	...	...	4	27	1	...	
8	Maung Tu, girdling gaung ...	Mr. H. B. Ward, Assistant Conservator of Forests ...	Dôndami ...	Ônkangyi reserve	...	...	...	...	191	...	...	...	
			Ditto .	Tagelaung reserve	...	...	..	...	235	...	...	...	
				Total ...	2,612	300	800	210	2,528	150	150	200	Teak trees ... 2,612 Other trees ... 3,538 GRAND TOTAL... 6,150

APPENDIX D.

Pegu Circle.

Statement of teak and other trees girdled and forest work done in season 1882-83.

Name of section	Name of revising officer.	Forest district.	Locality.	Teak.	Padauk.	Maniawga.	Pyinma.	Ingyin.	Thitya.	Kanyin.	Remarks.
Prome Division.											
Myedè range	Maung Kyaw Dun, ranger.	Myedè	Kadinyatha stream	60	...	..	...	...	...	...	
			Bangôn stream	150	...	...	...	...	...	...	
			Alè stream	100	...	...	...	...	...	...	
			Between Talaba and Alè streams	190	...	...	...	...	...	...	
			Between Talaba and Bangôn streams	140	...	...	...	...	...	...	
			Between Kadinyatha stream and Satauwa reserve	150	...	...	...	...	...	...	
			Yelaung stream	210	...	...	...	...	...	...	
			Source of Tindaw stream	177	...	...	...	...	...	...	
			Nibalaung stream	40	...	...	...	...	...	...	
			Alè stream	10	...	...	...	...	...	...	
			Padè stream	23	...	...	...	...	...	...	
			Total	1,250	...	...	...	...	...	...	
Nawin range	Maung Shwe Thaung, ranger.	Middle Nawin	Hmyazetpin stream	165	...	...	...	...	...	...	
			Yebwet stream	85	...	...	...	...	...	...	
			Betkya stream	100	...	...	...	...	...	...	
			Between Dabi stream and its watershed	450	...	...	...	...	...	...	
			Total	800	..	...	...	...	...	...	
Mahathaman	Maung Hmaw, forester.	Dathwe Gyauk stream.	Sanmyaung	42	...	...	...	...	...	...	
			Chilsinmamyaung	48	...	..	...	...	...	...	
			Thônyayekmyaung	68	...	...	...	...	...	...	
			Nganbatmyaung	42	...	...	..	...	...	...	
			Total	200	...	...	...	...	...	...	
			Total Prome	2,250	...	...	...	...	...	...	Outside reserves.
Tharrawaddy Division.											
Shwele range	.....	Shwele	Etkakwin forest	48	...	...	..	...	...	...	
			Paungaing forest	83	...	...	...	..	...	...	
			Paukpin kwin forest	19	...	..	...	..	...	...	
			Total	150	...	...	...	..	...	...	Ditto.
Taungnyo Bawbin range.	Maung Chit Su, ranger.	Minbu	*South of Shwepala stream—* Kayu stream, north side	59	...	...	...	...	...	..	
			Hmyawya stream, north side— Gwebingôn forest	238	..	..	...	...	...	...	
			North of Shwepala stream— Sakangyi forest	289	...	..	...	...	...	...	
			Saunggwetyama forest	230	..	...	...	...	.	...	
			Carried over	816	...	...	...	...	...	...	

Statement of teak and other trees girdled and forest work done in season 1882-83—(continued).

Name of section.	Name of revising officer.	Forest district.	Locality.	Teak.	Padauk.	Maniawga.	Pyinma.	Ingyin.	Thitya.	Kanyin.	Remarks.
Thabawaddy Division—(continued).			Brought forward ...	816	.	...	..	...	...	...	
			South of Tauktè stream—								
			Swègôk forest	180	.	...	..	...	...	...	
			South of Myauk stream—								
			The tkebyin forest	325	..	...	...	...	...	...	
			South of Minbu stream—								
			Ôkshitbin kwin forest	199	...	...	...	...	...	...	
			Payagyi forest	189	...	...	...	...	...	...	
Taungnyo Bawbin range.	Maung Chit Su, ranger—(concld).	Mibnu—(concld).	Omyedwin forest	173	...	...	...	...	...	...	
			Myauklôksan forest	118	...	...	...	...	...	...	
			Hmyawdantaung forest	202	...	...	...	...	...	...	
			North of Minbu stream—								
			Pazunmyaung stream	517	...	...	...	...	...	...	
			Seikputaung stream	116	...	...	...	...	..	...	
			Kyatyo stream	19	...	...	...	...	.	...	
			Total ..	2,854	...	...	...	...	...	..	Outside reserves.
			North of Taungchaung above Letpadan—								
			North of Tu stream	53	...	...	...	...	...	...	
			South of ditto	57	...	...	...	...	...	...	
			South of Kôn village	100	...	...	...	...	...	...	
			South of Pazunseik stream	90	...	...	...	...	...	...	
			South of Taung stream above Letpadan—								
			Between Chaungsauk and stream	111	...	...	...	...	...	...	
			Between Chaungsauk and watershed	133	...	...	...	...	...	...	
			Along Theingyi Yo—								
			Nyaunghlewadaung forest	8	...	...	...	...	...	...	
			From Kyunnetgôn to Sayamin village	33	...	...	...	...	...	...	
Gamôn Minhla range	Maung Ne U, forester.	Taung	From Sayamin to Shwe Myat	35	...	...	...	...	...	...	
			Below Shwe Myat	22	...	...	...	...	...	...	
			Ditto ditto	24	...	...	...	...	...	...	
			North of Taung stream—								
			From Kyundaw to Tinzeik	259	...	...	...	...	...	...	
			South of Tenzeik	6	...	...	...	...	...	...	
			East of Toungstream below Letpadan—								
			South of Padamya village...	9	...	...	...	...	...	...	
			South of Leuzu	30	...	...	...	...	...	..	
			Between Yebyanbauk and Shedante cart-road ...	532	...	...	...	...	...	..	
			Total ...	1,501	...	...	...	...	..	...	Ditto.
			West of Nyaungbin stream	46	..	...	...	...	..	..	
Bilin range ...	Ditto ...	Môkka ...	East of Nyaungbin stream.	135	...	...	...	..	...	...	
			Tinnyinsein forest	27	..	...	...	...	...	...	
			Carried over ...	208	..	...	—	...	...	...	

Statement of teak and other trees girdled and forest work done in season 1882-83—(continued).

Name of section.	Name of revising officer	Forest district.	Locality.	Teak.	Padauk.	Maulawga.	Pyinma.	Ingyin.	Thitya.	Kanyin.	Remarks.
THARRAWADDY DIVISION—(concluded).			Brought forward ...	208	...	.	..	...	.	...	
Bilin range—(contd.)	Maung Ne U, forester—(contd.)	Môkka—(concld.) ...	Between Thèbyu stream and Kywèthe stream ...	49	..	...	...	...	...	...	
			Between Kywehthay stream and main stream ...	70	...	...	...	...	...	...	
			North of road to Panhletè	120	...	...	...	...	...	...	
			North of Gyandaung stream	70	...	...	...	...	...	...	
			North Yetkanzin stream	7	...	...	..	...	...	...	
			North of Kyaunggwa	10	..	...	...	...	...	...	
			Taungyi forest	3	...	...	...	...	...	...	
			South of Banbwebin	12	...	...	...	...	...	...	
			South of Sachaung	8	...	...	...	...	...	...	
			South of Môkka village	43	..	...	..	...	...	...	
			Total ...	600	...	...	...	...	...	...	Outside reserves.
		Thonezeh ..	Be Kanlan forest	12	...	...	...	...	...	...	
			Kya stream forest	19	...	...	..	...	...	...	
			Kyat kwin forest	25	...	...	...	...	...	...	
			Below Natchaung	12	...	...	...	...	...	..	
			South of Namabauk stream	30	...	...	...	...	...	...	
			North of ditto	117	...	...	...	...	...	...	
			Total ...	215	...	...	...	...	..	...	Ditto.
Ditto ...	Mr. P. J. Carter, Deputy Conservator.	Môkka ...	Compartment No. 1	22	...	...	...	...	...	...	
			Ditto „ 2	30	...	...	...	...	...	...	
			Ditto „ 5	117	...	...	...	...	...	...	
			Ditto „ 7	1	...	...	..	...	...	...	
			Ditto „ 8	4	...	...	..	..	..	...	
			Ditto „ 9	4	.	..	...	...	...	...	
			Ditto „ 15	23	.	...	...	...	..	...	
			Total ...	200	..	...	..	...	..	...	Inside reserves.
			Total Tharrawaddy ...	5,520	..	...	...	...	...	...	
RANGOON DIVISION.			Kyatkyidaw	.	..	130	21	...	...	...	
Paunglin range .	Mr. L. D'Rozario, ranger.	Pegu district ...	Hlevdôn stream	...	...	..	202	...	.	...	
			Kyat stream	...	...	36	162	...	...	...	
			Kangawgyaw	...	...	129	12	...	..	...	
			Ingyauk	...	...	115	26	...	.	...	
			Hngetkyidaung In	...	..	20	...	..	...	...	
			Wachaung west side	...	...	35	...	...	...	...	
			Zayit In	...	...	22	1	.	...	...	
			Shaukmyaung	...	...		30	...	..	..	
			Kyathaungmyaung	...	...	...	29	...	...	...	
			Baw In	...	...	13	17	...	...	...	
Pegu range ...			Shaukchaung forest	12	...	...	...	...	...	...	
			Thangyo forest	258	...	...	...	...	...	...	
			Taungchaung forest	146	...	...	...	...	...	..	
			Myaukchaung forest	158	...	...	...	...	..	...	
			Pyinmachaung forest	768	...	...	...	...	...	...	
			Total Rangoon ...	1,342	...	500	500	...	...	...	Outside reserves.

Statement of teak and other trees girdled and forest work done in season 1882-83—(concluded).

Name of section.	Name of revising officer.	Forest district.	Locality.	Teak.	Padauk.	Maniawga.	Pyinma.	Ingyin.	Thitya.	Kanyin.	Remarks.
TOUNGOO DIVISION. Thagaya range ...	Mr. J. N. Pickard, Assistant Conservator.	Saing	Kyauko	296	...	...	...	...	...	...	Inside reserves.
			Ditto	300	...	...	...	...	...	...	
			Minyè kwin	266	...	...	...	...	...	...	Outside reserves.
			South of Lemyaung	1,331	...	...	...	...	...	...	Inside reserves.
			North of Lemyaung	1,563	...	...	...	...	...	...	
	Maung Hein, apprentice.		Wayè	652	...	...	...	...	...	...	Outside reserves.
			Ngayôk	211	...	...	...	...	...	...	
			Pyinmadaw	795	...	...	...	...	..	...	
			Myasall	458	...	...	...	...	...	...	
Bônmadi range ...	Maung Bwa, ranger	Pyu	Taingngè	...	...	..	..	...	...	...	
			Sadôngyaw	...	...	...	100	...	...	...	
		Yaukthawa ..	Yaukthawa	...	100	...	900	...	...	...	
			Total Toungoo ...	5,872	100	.	1,000	...	...	...	Inside reserves 3,490. Outside do. 2,382.
SHWEGYIN DIVISION. Kyaukki range ...	Maung Shwe Thaung, ranger.	Kyaukkyi ...	Môn	...	...	...	500	...	...	57	Outside reserves.
			GRAND TOTAL ...	14,984	100	500	2,000	...	...	57	

Statement of teak and other trees girdled in the Pegu circle during the season of 1881-82.

Name of range.	Name of girdling officer	Forest district.	Locality.	Teak trees girdled.	Trees counted by girdling officer.	Other trees girdled	Remarks
			Prome Division.				
Myede ..	Maung Kyaw Dun, forest-ranger	Padè ...	Padè stream, north and south banks of the main stream above the mouth of the Tindaw stream	130	130	...	
			North and south banks of Tindaw stream between Ingale and Thayetchaung villages	150	150	...	
		Bulè	Between Chaunggaunggyi and Bangôn streams	70	70	...	
			East bank of Bangôn stream between the Hlaudin and Paungaing villages	160	160	...	
			East bank of Bangôn stream above the Talaba village	235	235	...	
			Between Bangôn and Satsuwa streams north-west, above the Kyetthungin village	255	255	...	
			Total Padè and Bulè Forests ..	1,000	1,000	...	
Nawin . ..	Maung Shwe Thaung, forest-ranger.	Middle Nawin ...	West bank of Baungwe stream	113	113	...	
			Baungwe stream, east and west banks	147	147	...	
			Pwegin stream, west bank	14	14	...	
			Shwelaung stream, east bank, below the mouth of Pazunzeik stream	100	100	...	
			Pazunzeik stream, east bank	61	61	...	
			Mwehauk stream, east and west banks	91	91	.	
			Satha stream, at the source	156	156	...	
			Kyauk stream, at the source	149	149	...	
			Between Kyauk stream and Dabi stream	145	145	...	
			South bank of main stream east of Kyaukkyimyaung	24	24	...	
			Total Middle Nawin Forests ...	1,000	1,000	...	
			Total Prome ...	2,000	2,000	...	
			Tharrawaddy Division.				
Taungnyo Bawbin	Maung Chit Su, forester ...	Minbu ...	Kayu stream	160	...	...	
			Hlegyidôn forest	100	...	...	
			Shwebula do.	255	...	...	
			Hmawya do.	375	...	...	
			Taungyi do.	38	...	...	
			Dhingangwetma do	44	...	...	
			Shwegyolin do.	125	...	...	
			Seikpugyin do	381	...	...	
			Thitpyoke do	175	...	...	
			Kangalo do.	157	...	...	
			Kangyi do.	435	...	...	
			Gwe stream do.	645	..	...	
		Minbu and Bawbin	Kywegwin do.	1,010	...	...	
Gamôn Minhla	Maung Ne Wun, forest-ranger.	Minhla ..	North of Thabyewa stream, Sattu forests	116	...	...	
			South of Thabyewa stream, Thabyewa forests	108	...	...	
			Between Minhla and Teindaing streams, Sizôngôn forests	69	...	...	
			Kanthava forests	138	...	...	
			Hlebyindin forests	29	...	...	

Bilin	Maung Ne Wun, forest-ranger.	Kôn Bilin ..	Odôk forest	86	...	...
			Pogaung forest	90	...	...
			Inbindaung forest, source of Madaw stream	76	...	...
			Madaw forest, south bank of Madaw	90	...	...
			Taungbyat forest, between Madaw and Kôn Bilin streams ...	87	...	...
			Chaukse forest, between Nalingyaw and Kôn Bilin streams ...	121	...	...
			Pyintaya forest, south bank of Waya stream	13	...	...
			Sachaung forest, north of Sachaung	120	...	...
			Sachoung forest, south of Sachoung	117	...	...
			Total ...	5,160	...	...
	Mr. J. W. Oliver, Deputy Conservator of Forests.	Môkka	Myayzaythayaw	5	...	...
			Yayngin stream, east bank and source	85	...	...
			Kunzan stream, east bank	79	...	...
			Kunzan stream west bank	31	...	...
			Total ...	200*	...	...
			Total Tharrawaddy ...	5,360	...	...
			Rangoon Division.			
Pegu	Maung Shwe Tu, forest-ranger.	Pegu	Paung stream	850	...	...
			Thanyo stream	650	...	...
			Shauk stream	350	...	...
			Taungleik stream	150	...	...
Paunglin	L. Rozario, forest-ranger.	Wadalè	Kyunbinlin	...	...	50
			Tabindaing	...	...	64
			Thègaw	...	...	330
			Hledôn	...	...	350
			Luyobôn	...	...	32
			Kyaungya	...	...	137
			Wadalè	..	...	37
			Total Rangoon ...	2,000	...	1,000†
			Toungoo Division.			
Thagaya	Maung Shwe Gôn, probationer.	Saing	Upper Saing	7,261	...	...
	Maung Bwa, forest-ranger.	...	Between Sègale and Teinbyet streams	...	...	500
			Total Toungoo ...	7,261	...	500‡
			Shwegyin Division.			
Sittang	Maung Tôk Po, forest ranger.	Dônzareik	Mèwaing stream	...	...	973
			Tihmo stream			
			Kyunmanga stream			
			Kyun stream			
	Maung Sin Nyo, forest-guard.	Do.	Tinapalè stream	...	...	380
			Kabalaw stream			
Kyaukkyi	Maung Shwe Thaung, forest-ranger.	Pade	Pade stream	...	...	304
			Shwègyin stream			
			Shwèinyeik			
			Bawpè			
			Kyaukthôulôn			
			Tônin			
			Total Shwegyin ...	...	...	957§
			Grand Total ...	16,621	...	2,457

* Inside reserve.

† Pyinma.

‡ Pyinma.

§ Kanyin and pyinma.

APPENDIX E.

Statement of outturn of foreign timber for the five years 1878-79 to 1882-83.

Name of forest.	1878-79.				1879-80.				1880-81.				1881-82.				1882-83.			
	Logs.	Tons.	Pieces.	Tons.	Logs.	Tons.	Pieces.	Tons.	Logs.	Tons.	Pieces.	Tons.	Logs.	Tons.	Pieces.	Tons.	Logs.	Tons.	Pieces.	Tons.
Karennee	46,208	50,509	2,164	1,062	67,899	81,146	1,436	861	60,966	75,397	878	745	52,235	78,352	1,069	962	58,518	77,777	3,353	2,662
Gyaingtaung ...	12,206	13,424	841	420	12,450	14,907	407	244	8,299	11,688	316	352	7,022	10,5[illegible]	515	360	6,840	8,300	2,955	1,964
Hmainglôngyi ...	7,914	8,702	96	48	13,245	15,868	51	30	5,772	7,237	74	59	7,455	11,182	476	380	5,668	8,502	1,316	1,053
Thaungyin	26,706	27,398	23,771	11,885	9,663	10,099	5,068	3,052	6,192	7,978	2,639	2,311	14,282	14,282	5,157	3,610	24,092	24,092	6,614	5,291
Đagwin	4,400	4,723	366	183	1,072	1,202	226	135	2,413	2,992	402	321	6,028	9,042	838	587	7,006	10,644	366	299
Total	97,434	104,756	27,238	13,618	104,329	123,222	7,208	4,322	83,642	105,292	4,309	3,788	87,022	123,391	8,055	5,899	102,214	129,315	14,604	11,289

APPENDIX F.

Statement showing the exports of timber and other forest produce from Moulmein during the year 1882-83.

Articles and countries to which exported	Denomination	Quantities	Value
			Rs
Wood, Teak—			
To United Kingdom	C tons	37,209	38,90,480
" Prussia (Dantzic)	"	550	52 282
" Prussia (Kiel)	"	374	35,582
" Spain (Gibraltar)	"	1,085	1,41,785
" Cape of Good Hope	"	1,107	1,19 192
" Egypt (Port Said)	"	19	1,721
" Mauritius	"	20	2 402
" Ceylon	"	837	66,957
" Siam	"	43	2,100
" Straits Settlements	"	226	22 660
" Sumatra	"	860	1,05,000
" Victoria	"	785	91 098
" Pondicherry	"	621	49 190
Total Foreign	"	43,736	45,83,399
To Bengal (Calcutta)	"	29,801	24,56,214
" Do (other ports)	"	406	51,077
" Bombay	"	27,403	21,98,671
" Madras (Madras)	"	7,769	6,14 312
" Do (other ports)	"	1,322	95,398
Total Home	"	66,291	54,15,672
To Provincial ports	"	1,621	1,38,283
Total Teak	"	111,648	1 01,37,354
Other Timber—			
To United Kingdom	"	11	600
" Bengal (Calcutta)	"	2,684	1,54 418
" Bengal (other ports)	"	17	1 160
" Bombay	"	122	6,377
" Madras (Madras)	"	282	24 678
" Madras (other ports)	"	9	191
Total Home	"	3,114	1,86 824
To Provincial ports	"	1 805	65,853
Total Other Timber	"	4,950	2,52,777
Wood manufactures Shingles, teak—			
To Mauritius	No	2,229 000	46,364
" Straits Settlements	"	144,000	2,504
Total Foreign	"	2,373,000	48,868
To Bengal (Calcutta)	"	261 900	4,249
To Provincial ports	"	3,880,900	65,111
Wood Teak heads and stoves—			
To Bengal (Calcutta)	C tons	40	1,209
Wood Railway keys, teak—			
To Bengal (Calcutta)	Cwt	7,182	21 726
" Bombay (Bombay)	"	3,810	10,152
Total Home	"	10,992	31,878
Wood Railway blocks, teak—			
To Provincial ports	"	14	60
Wood Wooden sleepers, pyinma—			
To Bengal (Calcutta)	"	3	12
Wood Wooden sleepers pyinkado—			
To Bengal (Calcutta)	"	483	780
" Provincial ports	"	172	386
Total Wood Manufactures	"		1,54,553
Gums and resins Cutch and gambier—			
To Madras (other ports)	"	8	68
Lac, stick—			
To Provincial ports	"	147	2,625
Wood-oil—			
To Bombay	Galls	54	55
" Madras (Madras)	"	2,269	1,906
" Madras (other ports)	"	1,600	1,550
Total Home	"	3,923	3,511
To Provincial ports	"	2,000	1,630

APPENDIX G.

Summary of revenue of the different divisions during 1882-83.

Budget head receipts.	Direction.	Salween division.	East Salween division.	West Salween division.	Ataran division.	Kado division.	Tavoy division.	Mergui division.	Total.
I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
a. Timber	.....	71,204 12 3	3,65,956 7 11	61,628 8 0	1,30,023 14 0	.....	52,771 0 0	.....	6,81,584 10 2
b. Firewood and charcoal	.....	6 0 0	.....	.....	.....	.....	.....	.....	6 0 0
c. Bamboos	.....	.....	.....	.....	.....	.....	.....	.....	.....
d. Sandal-wood...	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	.....	.....	.....	.....	.....	.....	.....	.....
II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS—									
a. Timber	.....	3,786 13 3	7,506 14 3	1,367 14 0	8,721 3 6	536 8 0	4,887 13 9	666 7 6	27,473 10 3
b. Firewood and charcoal...	.....	.....	.....	.....	.....	.....	31 0 0	9 0 0	40 0 0
c. Bamboos	.....	9 12 0	.....	.....	21 4 0	.....	.....	.....	31 0 0
d. Grazing and fodder grass	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Other minor produce	.....	.....	.....	.....	.....	.....	2,193 0 0	3,374 0 0	5,567 0 0
III.—CONFISCATED, DRIFT, AND WAIF WOOD	.....	.....	.....	.....	.....	79,498 0 0	1,839 14 0	1,818 8 0	83,156 6 0
IV.—REVENUE FROM FORESTS NOT MANAGED BY GOVERNMENT—									
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	69,372 13 0	.....	.....	69,372 13 0
b. Revenue from shared and private forests	.....	.....	.....	.....	.....	.....	.....	.....	.....
V.—MISCELLANEOUS—									
a. Fines and forfeitures	.....	1,680 0 0	.....	.....	.....	.....	189 0 0	.....	1,869 0 0
b. Refunds	.....	51 0 0	.....	.....	.....	.....	.....	.....	51 0 0
c. Other sources...	.....	258 12 0	.....	.....	.....	8,080 8 0	55 0 0	19 0 0	8,413 4 0
Total Receipts ...	.....	76,997 1 6	3,73,463 6 2	62,996 6 0	1,38,766 5 6	1,57,487 13 0	61,966 11 9	5,886 15 6	8,77,564 11 5

APPENDIX G.

Summary of expenditure of the different divisions for 1882-83.

Budget heads.	Direction.	Salween division.	East Salween division.	West Salween division.	Ataran division.	Kado division.	Tavoy division.	Mergui division.	Total.
A.—CONSERVANCY AND WORKS.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—									
a. Timber	250 3 6	29,035 4 4	76,700 4 5	41,640 6 4	72,921 0 0	.....	33,793 13 7	6 12 0	2,54,347 12 2
b. Firewood and charcoal	.....	.....	.....	.....	.....	.....	.....	.....	.....
c. Bamboos	.....	.....	.....	.....	.....	.....	.....	.....	.....
d. Sandal-wood	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	.....	.....	.....	.....	.....	.....	.....	.....
II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS—	.....	51 0 0	10 1 0	.....	58 0 0	.....	64 4 0	.....	183 5 0
III.—CONFISCATED, DRIFT, AND WAIF WOOD	.....	545 0 0	.....	.....	.....	34,094 5 3	1,037 12 0	1,278 8 3	36,955 9 6
IV.—REVENUE FROM FORESTS NOT MANAGED BY GOVERNMENT									
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests	.....	.....	.....	.....	.....	.....	.....	.....	.....
V.—RENT OF LEASED FORESTS AND PAYMENTS TO SHAREHOLDERS IN FORESTS MANAGED BY GOVERNMENT	.....	.....	.....	.....	.....	.....	.....	.....	.....
VI.—LIVESTOCK, STORES, TOOLS AND PLANT—									
a. Purchase of cattle	.....	.....	.....	800 0 0	.....	.....	.....	.....	800 0 0
b. Feed and keep of cattle	.....	1,129 8 0	271 3 3	14 0 0	.....	.....	.....	.....	1,414 11 3
c. Stores, tools and plant	804 2 0	930 9 10	1,353 12 8	870 13 6	788 5 8	1,579 1 0	531 2 9	43 0 0	6,900 15 5
VII.—COMMUNICATIONS AND BUILDINGS—									
a. Roads and bridges	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Buildings	.....	.....	212 0 0	70 4 0	.....	.....	452 8 0	102 7 0	837 3 0
c. Other works	.....	.....	2 0 0	10 0 0	.....	.....	4,512 7 2	.....	4,524 7 2
VIII.—DEMARCATION, IMPROVEMENT, AND EXTENSION OF FORESTS—									
a. Demarcation	.....	127 0 0	273 8 8	268 8 8	21 12 8	.....	.....	.....	690 14 0
b. Compensation for land and rights	.....	.....	.....	880 0 0	.....	.....	.....	.....	880 0 0
c. Surveys and working-plans	58 0 0	4 0 0	26 0 0	.....	.....	.....	547 13 5	.....	635 13 5
d. Plantations	.....	175 12 8	136 11 6	1,383 13 0	326 8 11	.....	.....	1,962 4 10	3,985 2 11
e. Protection from fire	.....	.....	439 5 0	707 9 6	159 0 0	.....	.....	.....	1,305 14 6
f. Other works	.....	.....	.....	.....	.....	.....	.....	.....	.....
IX.—MISCELLANEOUS—									
a. Refunds	.....	.....	.....	.....	.....	.....	18 10 7	7 8 0	26 2 7
b. Law charges	.....	25 0 0	.....	.....	.....	.....	.....	.....	25 0 0
c. Other charges	40 0 0	.....	.....	6 0 0	.....	34 0 0	.....	.....	80 0 0
Total A.—Conservancy and Works	1,152 5 6	32,023 2 10	79,424 14 6	46,651 7 0	74,274 11 3	35,707 6 3	40,958 7 6	3,400 8 1	3,13,592 14 11
B.—ESTABLISHMENTS.									
I.—SALARIES—									
a. Conservators	12,977 1 2	.....	.....	.....	.....	.....	.....	.....	12,977 1 2
b. Superior officers	88 11 4	9,586 10 8	5,143 3 7	5,487 11 10	2,853 5 4	.....	6,111 10 8	.....	29,271 5 5
c. Subordinate forest and depôt establishments	.....	402 14 0	2,580 13 11	1,747 13 0	1,449 0 0	6,195 13 0	918 0 0	.....	13,294 5 11
d. Office establishments	4,992 12 2	2,362 14 5	137 12 0	540 0 0	.....	4,890 0 0	423 2 3	.....	13,346 8 10
e. Deputation and special allowances	.....	200 0 0	.....	.....	.....	.....	.....	.....	200 0 0
II.—TRAVELLING ALLOWANCES—									
a. Conservators	1,590 0 0	.....	.....	.....	.....	.....	.....	.....	1,590 0 0
b. Superior officers	.....	.....	1,462 0 0	1,094 0 0	836 3 6	.....	942 8 0	.....	4,334 11 6
c. Subordinate forest and depôt establishments	.....	48 0 0	11 3 2	2 8 0	.....	20 0 0	.....	.....	81 11 2
d. Office establishments	75 11 1	.....	13 11 7	.....	3 11 0	.....	6 0 0	.....	99 1 8
III.—CONTINGENCIES—									
a. Stationery	3 0 0	.....	15 0 0	.....	.....	.....	.....	.....	18 0 0
b. Carriage of tents and records	108 0 0	.....	2 0 0	.....	.....	.....	.....	.....	110 0 0
c. Rents, rates, and taxes	16 4 4	16 4 8	.....	.....	.....	18 6 0	.....	.....	50 15 0
d. Pay of police guards	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Official postage	47 4 0	48 12 0	.....	.....	.....	.....	11 10 0	.....	107 10 0
f. Sundries	434 0 0	474 5 3	443 10 9	80 10 9	30 6 9	91 8 0	90 1 8	3 0 0	1,647 11 2
Total B.—Establishments	20,332 12 1	13,199 13 0	9,809 7 0	8,952 11 7	5,172 10 7	11,215 11 0	8,503 0 7	3 0 0	77,129 1 10
GRAND TOTAL OF EXPENDITURE	21,485 1 7	45,162 15 10	89,234 5 6	55,604 2 7	79,447 5 10	46,923 1 3	49,461 8 1	3,403 8 1	3,90,722 0 9

APPENDIX H.

Tenasserim Circle.

Extract from the Forest Day-books of the Officers of the Forest Department showing the number of teak and other trees counted during 1882-83.

Name of division	Name of forest tract.	Year of survey.	By whom surveyed.	Number of tract.	Trees counted in the survey. Teak. 1st class.	Teak. 2nd class.	Teak. 3rd class.	Teak. 4th class.	Teak. Stumps.	Teak. Girdled.	Pyingado. 1st class, above 4 cubits.	Pyingado. 2nd class, 3 cubits.	Pyingado. 3rd class, 1 and 2 cubits.	Thingan and Magale. 1st class.	Thingan and Magale. 2nd class.	Thingan and Magale. 3rd class.	Pyinma. 1st class.	Pyinma. 2nd class.	Pyinma. 3rd class.	Karawe. 1st class.	Karawe. 2nd class.	Karawe. 3rd class.	Kaunghma and Kadut. 1st class.	Kaunghma and Kadut. 2nd class.	Kaunghma and Kadut. 3rd class.	Thitka. 1st class.	Thitka. 2nd class.	Thitka. 3rd class.
South Tenasserim Division.	From chapel at Migyaung to Kale village	1882.	T. H. Aplin, Upper Tavoy forests.	1	...	...	...	...	...	...	161	145	127	...	...	...	A few not counted			...	...	...	...	...	...	...	...	...
	„ Kale village to mouth of the Kan stream ...			2	...	...	...	...	...	...	27	19	16	2	...	23	37	23	11	1	...	...	...	...	...	...	...	...
	„ Kan stream mouth to Yatpu village			3	...	...	...	...	...	...	34	24	40	24	45	82	144	84	50	...	...	...	...	...	...	...	...	...
	„ Yatpu village to the Nantayôk stream ...			4	...	...	...	...	...	...	...	3	1	5	4	1	...	...	...	A few not counted			...	...	...	...	...	...
	„ Nantayôk stream to Natkyizin			5	...	...	...	...	...	...	3	2	13	19	5	5	A few not counted			...	...	...	...	...	...	...	...	...
	„ Natkyizin village to Paukpungwin village ...			6	...	...	...	...	...	...	61	63	43	1	...	...	...	...	...	14	23	...	...	...	...	...	...	...
	„ Mindaingyakwin to camp on Koleinbôk stream			7	...	...	...	...	...	...	21	13	13	8	...	...	...	...	...	7	3	...	28	2	...	...	...	...
	„ camp on Koleinbôk stream to camp lower down on same			8	...	...	...	...	...	...	...	...	...	8	...	...	4	...	...	37	26	13	...	...	...	...	...	...
	„ last camp to Lôkthaingsakan			9	...	...	...	...	...	...	7	5	1	...	...	...	11	1	...	...	5	1	...	...	...	...	...	...
	„ Lôkthaingsakan up the Kwegani stream to where it branches			10	...	...	...	...	...	...	...	...	...	21	22	32	68	28	9	...	...	...	...	...	...	...	...	...
	„ thence to camp at junction of the two northern branches			11	...	...	...	...	...	...	...	...	...	21	8	37	25	38	18	...	...	...	...	...	...	...	...	...
	„ point reached in No. 10 survey up the eastern branch for 3½ miles			12	...	...	...	...	...	...	...	...	...	92	34	20	4	1	...	...	...	...	...	...	...	...	...	...
	„ small kwin east of Lôkthaing camp up the Wabo stream			13	...	...	...	...	...	...	...	...	...	83	53	46	80	50	15	14	20	20	...	...	...	...	...	...
	„ Lôkthaing kwin to Yenauk stream			14	...	...	...	...	...	...	...	...	...	1	...	2	24	13	8	2	...	...	...	...	...	...	...	...
	„ Yenauk stream to Yatpu village			15	...	...	...	...	...	...	...	...	...	12	4	...	5	1	...	...	...	...	...	...	...	...	...	...
	„ Kale kwin to Kale stream			16	...	...	...	...	...	...	...	...	...	...	...	...	17	14	3	...	...	...	...	...	...	...	...	...
	„ Kale stream to Kan stream			17	...	...	...	...	...	...	7	5	10	Not counted.			...	...	...	...	...	...	...	...	...	...	...	...
	„ where the Kan stream is first met to camp at 2½ miles higher			18	...	...	...	...	...	...	...	...	...	11	9	14	24	23	15	2	5	...	A few not counted			...	...	...
	„ last camp to camp at mouth of the Yebu stream			19	...	...	...	...	...	...	...	...	...	85	91	142	34	26	29	A few not counted			...	...	...	...	...	...
	„ mouth of Yebu stream up it to the hot spring...			20	...	...	...	...	...	...	...	...	...	8	12	13	...	...	...	...	...	...	A few not counted			...	...	...
	„ Yebu stream to camp at 2½ miles higher ...			21	...	...	...	...	...	...	...	...	...	15	8	12	14	31	17	A few not counted			10	4	...	...	...	...
	„ last camp to the Siamese frontier			22	...	...	...	...	...	...	...	...	...	19	14	11	...	...	...	...	...	...	12	6	...	...	...	...
	„ the same camp up the main stream for 2½ miles			23	...	...	...	...	...	...	...	...	...	12	2	...	...	...	...	...	...	...	A few not counted.			...	...	...
	„ camp arrived at in survey No. 18, make survey on hills to east			24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	29	1	...	1	...	...
	„ Kale road survey to the top of the Kale hill ...			25	...	...	...	...	...	...	...	...	...	5	10	12	2	...	...	1	3	3	13	1	...	...	...	...
	„ top of Kale hill back to the Kale road ...			26	...	...	...	...	...	...	...	...	...	...	...	...	8	1	...	7	2	...	10	...	...	...	...	...
	„ Migyaunglaung in an east direction to thitka forest			27	...	...	...	...	...	...	25	81	34	...	...	...	...	...	...	A few not counted			...	...	...	...	...	...
	Through the thitka forest			28	...	...	...	...	...	...	A few not counted			...	...	...	...	...	...	A few not counted			A few not counted			25	16	10
	From Migyaunglaung to the Kyauksha stream ...			29	...	...	...	...	...	...	28	92	286	A few at Zenba C.			18	10	14	...	...	...	...	...	...	...	...	...
	„ Kyauksha stream to the Yebôn stream ...			30	...	...	...	...	...	...	41	105	191	...	...	...	6	2	1	...	...	...	...	...	...	...	...	...
	„ Yezugyi stream to mouth of Heinze stream ...			31	...	...	...	...	...	...	2	6	2	A few not counted			16	4	1	...	...	...	...	...	...	...	...	...
	„ mouth of Heinze stream to Migyaunglaung ...			32	...	...	...	...	...	...	43	50	48	3	4	13	25	10	14	...	...	...	...	...	...	...	...	...
	„ Migyaunglaung along Eindayaza road to watershed			33	...	...	...	...	...	...	20	37	64	...	...	...	8	2	...	...	...	...	...	...	...	...	...	...
	„ watershed to Eindayaza			34	...	...	...	...	...	...	70	50	73	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	„ Migyaunglaung and Kale road to source of Kyaukkadin stream			35	...	...	...	...	...	...	17	21	13	...	...	...	26	10	4	2	...	2	37	5	...	5	2	...
	„ source of Kyaukkadin stream to mouth of Mayan stream			36	...	...	...	...	...	...	...	...	...	1	2	2	3	...	...	1	1	...	14	4	9	...	...	...
	„ Kwethamin stream to mouth of Kyauklôngyi stream			37	...	...	...	...	...	...	...	...	...	34	58	189	81	118	363	...	...	...	...	...	...	...	...	...
	„ mouth of Kyauklôngyi stream to Siamese frontier			38	...	...	...	...	...	...	10	12	38	12	21	57	6	4	18	9	1	1	34	3	11	...	...	...
	Carried over ...				...	...	...	...	...	...	577	733	1,013	502	406	713	690	493	590	97	89	40	187	26	20	31	18	10

APPENDIX H.

TENASSERIM CIRCLE.

Extract from the Forest Day-books of the Officers of the Forest Department showing the number of teak and other trees counted during 1882-83—(continued).

Name of division.	Name of forest tract.	Year of survey.	By whom surveyed.	Number of tract.	Trees counted in the survey. Thitkale. 1st class.	Thitkale. 2nd class.	Thitkale. 3rd class.	Padauk. 1st class.	Padauk. 2nd class.	Padauk. 3rd class.	Thitya. 1st class.	Thitya. 2nd class.	Thitya. 3rd class.	Area surveyed. Length of tract in chains.	Width in feet.	Area in acres.	Remarks.
South Tenasserim Division.	From chapel at Migyaung to Kale village ...	1883.	T. H. Alphin.—Upper Tavoy forest.	1	...	...	...	Some 2 or 3 seen			...	...	...	920	132	...	Pônzos very numerous.
	" Kale village to mouth of the Kan stream ...			2	...	...	...	...	...	...	Not counted.			454	132	...	Ditto ditto.
	" Kan stream mouth to Yatpu village			3	...	...	...	...	...	...	...	...	...	392	132	...	Thingan and pyinma abundant near mouth of Kan stream.
	" Yatpu village to the Nantayôk stream ...			4	...	...	...	Some 1 or 2 seen			25	30	59	360	132	...	Theya counted on 140 chains only.
	" Nantayôk stream to Natkyizin village ...			5	...	...	...	A few not counted			64	66	101	604	132	...	At first dry forests with kwins; then thitya forest.
	" Natkyizin village to Paukpingwin village ...			6	...	...	...	...	...	...	53	71	107	670	132	...	A considerable portion of this journey with low hills & moist forest.
	" Mindaingyakwin to camp on Koleinbôk stream			7	Occurs; not counted.			...	...	...	Not counted.			500	132	...	Principally evergreen forest on hills.
	" camp on Koleinbôk stream to camp lower down on same			8	...	...	...	...	...	...	7	10	27	440	132	...	Rather moist forest.
	" last camp to Lôkthaingsakan			9	...	...	...	...	...	...	...	...	...	248	132	...	A small group of pyingado; dry forests with kwins.
	" Lôkthaingsakan up the Kwagani stream to where it branches			10	...	...	...	...	...	...	Abundant; not counted.			230	132	...	After passing small kwins traverse theya forest.
	" thence to camp at junction of the two northern branches			11	...	...	...	...	...	...	...	...	...	178	132	...	Following the bank of stream.
	" point reached in No. 10 survey up the eastern branch for 3¼ miles			12	Occurs; not counted.			...	...	...	...	...	...	280	132	...	Following bank of stream, nantayôk, and palawa abundant.
	" small kwin east of Lôkthaing camp up the Wabo stream			13	...	...	...	...	...	...	Not counted.			574	132	...	Following banks of stream.
	" Lôkthaing kwin to Yenauk stream			14	...	...	...	...	...	...	...	...	...	214	132	...	Generally dry banbwe and zinbyun forest with kwins.
	" Yenauk stream to Yetpu village			15	...	...	...	...	...	...	...	...	...	456	132	...	Ditto ditto ditto.
	" Kale kwin to Kale stream...			16	...	...	...	A few not counted			...	...	...	234	132	...	Ditto ditto ditto.
	" Kale stream to Kan stream			17	...	...	...	...	...	...	...	...	...	166	132	...	Moist forest; a small group of pyingado near Kan stream.
	" where the Kan stream is first met to camp at 2¼ miles higher			18	...	...	...	...	...	...	Occurs; not counted.			180	132	...	Moist and evergreen forest on hills bordering Kan stream.
	" last camp to camp at mouth of the Yebu stream			19	A few not counted			...	...	...	...	...	...	460	132	...	Following more or less the banks of the Kan stream.
	" mouth of Yebu stream up it to the hot spring...			20	Not counted.			...	...	...	...	...	...	100	132	...	Moist and evergreen. A tract of magale occurs.
	" the Yebu stream to camp at 2¼ miles higher			21	A few not counted			...	...	...	...	...	...	184	132	...	Ditto ditto ditto.
	" last camp to the Siamese frontier			22	Abundant; not do.			...	...	...	Abundant; not do.			188	132	...	Ditto ditto ditto.
	" the same camp up the main stream for 2¼ miles...			23	A few not counted			...	...	...	...	...	...	180	132	...	Ditto Following banks of stream magale occurs.
	" camp arrived at in survey No. 18, make survey on hills to east			24	20	33	56	...	...	...	...	...	...	68	132	...	Evergreen forest; thitkale abundant.
	" Kale road survey to the top of the Kale hill ...			25	...	...	...	...	...	...	...	...	...	126	132	...	Ditto; a tract of magale.
	" top of Kale hill back to the Kale road ...			26	A few not counted			...	...	...	...	...	...	115	132	...	Evergreen forest; karawe at foot of hill.
	" Migyaunglaung in an east direction to thitka forest			27	...	...	...	...	...	...	Abundant; not do.			228	132	...	Waya and pyingado forest: pônzos numerous. Theya on low hills.
	Through the thitka forest			28	...	...	...	Some 1 or 2 seen			...	...	...	114	132	...	Moist forest with thitka.
	From Migyaunglaung to the Kyauksha stream ...			29	...	...	...	A few not counted			Occurs; not counted			466	132	...	Pônzos very numerous. Pyingado forest heavily worked.
	" Kyauksha stream to the Yebôn stream ...			30	...	...	...	...	...	...	...	...	...	494	132	...	Ditto ditto ditto.
	" Yezugyi stream to mouth of Heinze stream ...			31	...	...	...	...	...	...	...	...	...	316	132	...	Ditto road follows Tavoy river.
	" mouth of Heinze stream to Migyaunglaung ...			32	...	...	...	...	...	...	...	...	...	668	132	...	Ditto ditto ditto.
	" Migyaunglaung along Eindayaza road to watershed			33	...	...	...	2	1	...	3	2	4	182	132	...	Pônzos very numerous.
	" watershed to Eindayaza			34	...	...	...	...	...	...	38	54	134	294	132	...	Pyingado and waya forest in part, thitya forest in part.
	" Migyaunglaung and Kale road to source of Kyaukkadin stream			35	...	...	...	...	...	...	Not counted.			402	133	...	Ditto do.; on the hills evergreen.
	" source of Kyaukkadin stream to mouth of Mayan stream...			36	5	1	6	...	...	...	...	...	...	200	132	...	Evergreen on hills, then dry forest with zinbyun and banbwe.
	" Kwethamin stream to mouth of Kyauklôngyi stream...			37	...	...	...	...	...	...	...	...	...	344	132	...	Pyinma and thingan on banks of stream elsewhere very dry forest.
	" mouth of Kyauklôngyi stream to Siamese frontier			38	3	7	16	...	...	...	A few not counted			408	132	...	Small tract of pyingado, evergreen on hills; a little mégale.
	Carried over ...				28	41	78	6	2	...	190	233	432	12,637	...	...	

APPENDIX H.

Tenasserim Circle.

Extract from the forest day-books of the officers of the Forest Department showing the number of teak trees counted during 1882-83—(continued).

Name to division.	Name of forest tract.	Year of survey.	By whom surveyed.	Number of tract.	Trees counted in the survey. Teak. 1st class.	Teak. 2nd class.	Teak. 3rd class.	Teak. 4th class.	Teak. Stumps.	Teak. Girdled.	Pyingado. 1st class above 4 cubits.	Pyingado. 2nd class, 3 cubits.	Pyingado. 3rd class, 1 and 2 cubits.	Thingan and Magale. 1st class.	Thingan and Magale. 2nd class.	Thingan and Magale. 3rd class.	Pyinma. 1st class.	Pyinma. 2nd class.	Pyinma. 3rd class.	Karawe. 1st class.	Karawe. 2nd class.	Karawe. 3rd class.	Kaunghmu and Kadut. 1st class.	Kaunghmu and Kadut. 2nd class.	Kaunghmu and Kadut. 3rd class.	Thitka. 1st class.	Thitka. 2nd class.	Thitka. 3rd class.
South Tenasserim Division.	Brought forward ...			...	...	...	...	...	...	...	577	733	1,013	502	406	713	690	493	590	97	89	40	187	26	20	31	18	10
	From road to Siamese frontier in south-east direction to Zinba stream	1882.	T. H. Aplin, Upper Tavoy forests.	39	...	...	...	...	...	...	...	...	...	1	...	8	2	3	7	...	...	...	17	2	10	...	...	...
	„ last camp to camp higher up on the Zinba stream.			40	...	...	...	...	...	...	...	...	...	2	2	...	3	...	2	...	...	...	55	4	16	...	...	...
	„ last camp to the junction of two branches of the Kamaungthwe stream			41	...	...	...	...	...	...	...	...	...	...	2	...	...	..	...	2	3	2	17	2	8	...	...	...
	„ camp of survey 30 to camp lower down on the Zinba			42	...	...	...	...	...	...	...	...	...	2	...	...	22	8	4	...	...	...	14	1	2	...	...	...
	„ last camp down to road to the Siamese frontier ...			43	...	...	...	...	...	...	...	...	...	77	26	27	45	33	19	...	...	...	5	1	1	...	...	...
	„ Kadutpin sakan up the Kwethamin stream for 1¾ miles			44	...	...	...	...	...	...	...	...	...	14	92	406	5	28	47	...	...	...	...	...	...	...	...	...
	„ where the Siamese road crosses the Nataing stream up it for one mile			45	...	...	...	...	...	...	...	...	...	6	43	112	20	11	56	...	..	...	...	...	...	...	...	...
	„ point arrived at in survey 44 over the hills to branch of Kwethamin stream			46	...	...	...	...	...	...	...	...	...	27	28	19	...	...	...	...	...	...	Not counted.			...	...	...
	„ point arrived at in survey 44 up the Kwethamin for 1¾ miles			47	...	...	...	...	...	...	...	...	...	13	25	26	...	...	...	...	...	...	Ditto.			...	...	...
	„ point arrived at in survey 45 up both branches of Nataing stream			48	...	...	...	...	...	...	...	...	...	5	7	5	...	...	...	...	...	...	...	...	...	...	...	...
	„ Kwethamin stream to Nataing stream ...			49	...	...	...	...	...	...	...	...	...	8	8	10	...	1	6	...	...	...	20	8	3	...	...	...
	Thence up the Mayan stream for about 1½ miles ...			50	...	...	...	...	...	...	...	...	...	6	2	...	...	...	...	...	...	...	2	2	1	...	...	...
	From Mayan stream to camp on Paungsan stream ...			51	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	24	3	...	...	...	...
	„ camp on Paungsan stream to camp lower down on the same			52	...	...	...	...	...	...	...	...	...	2	...	1	2	...	...	11	1	1	Not counted.			...	...	...
	„ Paungsan stream to Kale and Kanchaung road			53	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	1	4	1	...	...	...	...
	„ Migyaunglaung and Eindayaza road to Kalamaungzeik			54	...	...	...	...	...	...	59	112	100	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...
	Total South Tenasserim ...	...	...	...	...	...	...	...	...	...	636	845	1,113	669	641	1,327	789	577	731	112	95	44	345	50	56	31	18	10
East Salween Division.	East Mithawe forest, Mithawe reserve, between the Mithawe and its eastern tributary, the Tipawkaw stream, immediately above the path to the Delaw chaungwa	1883.	Lieut.-Col. W. J. Sexton, lower Thaungyen.	1	43	42	105	160	34	65	...	...	...	..	...	...	...	...	...	..	...	...	...	...	...	...	...	...
	East Mithawe forest. Mithawe reserve, along the Delaw chaungwa path from the crossing of the Tipawkaw stream, tributary of the Mithawe southward			2	9	11	50	100	11	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Mithawe reserve along bank of Thaungyin river below the Delaw chaungwa			3	33	4	10	10	59	11	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total East Salween ...	...	...	...	85	57	165	270	104	81	...	...	..	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...
	Grand Total ...	...	...	...	85	57	165	270	104	81	636	845	1,113	669	641	1,327	789	577	731	112	95	44	345	50	56	31	18	10

APPENDIX H.

TENASSERIM CIRCLE.

Extract from the forest day-books of the officers of the Forest Department showing the number of teak and other trees counted during 1882-83—(concluded).

Name of division.	Name of forest tract.	Year of survey.	By whom surveyed.	Number of tract.	Trees counted in the survey—(concluded). Thitkale. 1st class.	Thitkale. 2nd class.	Thitkale. 3rd class.	Padauk. 1st class.	Padauk. 2nd class.	Padauk. 3rd class.	Thitya. 1st class.	Thitya. 2nd class.	Thitya. 3rd class.	Area surveyed. Length of tract in chains.	Width in feet.	Area in acres.	Remarks.
	Brought forward ...				28	41	78	6	2	...	190	233	432	12,637	132	...	
South Tenasserim Division.	From road to Siamese frontier in south-east direction to Zinba stream	1882.	T. H. Aplin, Upper Tavoy Forests.	39	2	1	...	...	...	...	...	...	...	446	132	...	Dry forest for 140 chains; then moist and evergreen.
	„ last camp to camp higher up on the Zinba stream ...			40	13	12	15	...	...	...	...	...	...	454	132	...	Moist forest following banks of stream; kamaungthay abundant.
	„ last camp to the junction of two branches of the Kamaungthwe stream			41	20	14	27	...	...	...	...	...	...	316	132	...	Evergreen forest.
	„ camp of survey 39 to camp lower down on the Zinba			42	20	14	21	...	...	...	...	...	...	402	132	...	Moist forest following banks of stream.
	„ last camp down to road to the Siamese frontier ...			43	...	...	...	...	...	...	...	...	...	230	132	...	Ditto ditto; thingan abundant.
	„ Kadutpinsakan up the Kwethamin stream for 1¾ miles			44	...	...	...	...	...	...	...	...	...	140	132	...	A belt of magnificent young thingan bordering the Kwaythamin.
	„ where the Siamese road crosses the Nataing stream up it for one mile			45	...	...	...	...	...	...	...	...	...	80	132	...	Ditto ditto Natye stream.
	„ point arrived at in survey 44 up the Kwethamin branch of Kwethamin stream			46	2	1	2	...	...	...	...	...	...	156	132	...	Evergreen forest; a magnificent patch of magale.
	„ point arrived at in survey 44 up the Kwethamin for 1½ miles			47	6	6	15	...	...	...	...	...	...	140	132	...	Ditto; a good patch of magale.
	„ point arrived in survey 45 up both branches of Nataing stream			48	3	8	30	...	...	...	...	...	...	124	132	...	Ditto; a little magale.
	„ Kwethamin stream to Nataing stream			49	10	7	5	...	...	...	...	...	...	232	132	...	Moist forest.
	Thence up the Mayan stream for about 1½ miles ...			50	16	14	21	...	...	...	...	...	...	128	132	...	Along the banks of the Mayan stream.
	From Mayan stream to camp on Paungsan stream ...			51	33	59	177	...	...	...	...	...	...	318	132	...	Hills covered with evergreen jungle.
	„ camp on Paungsan to camp lower down on the same			52	Occurs; not counted.			...	...	...	...	...	...	280	132	...	Following the Paungsan stream.
	„ Paungsan stream to Kale and Kanchaung road ...			53	...	...	...	...	...	...	...	...	...	100	132	...	From moist to dry forest.
	„ Migyaunglaung and Eindayaza road to Kalamaungzeik			44	...	...	...	...	...	...	...	...	...	360	132	...	Pyingado forest and theya forest; in forest on the water[illegible]od.
	Total ...	...	...	...	153	177	391	6	2	...	190	233	432	16,543	132	3,308·06	
East Salween Division.	East Mithawe forest, Mithawe reserve, between the Mithawe and its eastern tributary, the Tipawkaw stream, immediately above the path to the Delaw chaungwa	1883.	Lieut.-Col. W. J. Seaton, Lower Thaungyin.	1	...	...	...	...	...	...	...	...	...	5,758	100	...	
	East Mithawe forest, Mithawe reserve, along the Delaw chaungwa path from the crossing of the Tipawkaw stream, tributary of the Mithawe southward			2	...	...	...	...	...	...	...	...	...	3,150	...	...	
	Mithawe reserve along bank of Thaungyin river below the Delaw chaungwa			3	...	...	...	...	...	...	...	...	...	5,220	...	...	
	Total ...	...	...	...	...	...	...	..	...	...	...	..	...	14,128	100	32·43	
	GRAND TOTAL ...	...	...	...	153	177	391	6	2	...	190	233	432	30,671	...	3,340·49	

APPENDIX H.

Pegu Circle Môkka-Bilin Reserve.

No. of survey.	Block and number of compartment.	Whether linear survey or sample plot.	Area. A.	Area. D.	Sound girdled teak trees.	Unsound teak trees. Above 1 foot diameter.	Unsound teak trees. Below 1 foot diameter.	Unsound teak trees. Total unsound teak trees.	Sound teak trees. Above 2½ feet diameter.	Sound teak trees. 2 to 2½ feet diameter.	Sound teak trees. 1½ to 2 feet diameter.	Sound teak trees. 1 to 1½ feet diameter.	Sound teak trees. Below 1 foot in diameter. Dominant.	Sound teak trees. Below 1 foot in diameter. Suppressed.	Sound teak trees. Below 1 foot in diameter. Total.	Other trees 1 foot in diameter and above. Pyinma.	Other trees 1 foot in diameter and above. Pyingado.	Other trees 1 foot in diameter and above. Kauyin.	Other trees 1 foot in diameter and above. Ingyin and thitya.	Other trees 1 foot in diameter and above. In.	Other trees 1 foot in diameter and above. All others.	Remarks.
1	North Bilin 1 ...	Linear survey ...	10	...	...	1	3	4	1	2	3	9	...	...	61	25	37	...	...	...	216	The linear surveys are of an uniform width of two chains (132 feet), their position is shown on the sketch-map.
2	Ditto 1 ...	Ditto ...	3	...	...	...	...	13	...	...	1	11	...	...	27	1	12	...	...	...	60	
3	Ditto 2 ...	Ditto ...	4	...	...	...	...	13	...	2	5	9	...	...	27	...	8	1	...	...	75	
4	Ditto 2 ...	Ditto ...	6	...	...	2	3	5	2	3	5	9	...	...	16	1	39	...	...	...	104	
5	Ditto 3 ...	Ditto ...	4	...	...	...	...	8	2	1	1	6	...	...	26	...	10	...	...	...	62	
6	Ditto 3 ...	Ditto ...	7	...	...	...	...	20	...	3	5	18	...	...	112	1	11	...	...	...	103	
7	Ditto 5 ...	Ditto ...	20	...	...	11	22	35	5	5	15	31	...	...	205	4	67	...	...	...	311	
8	Ditto 5 ...	Ditto ...	6	...	...	...	...	2	1	2	6	10	...	...	47	1	25	1	...	6	73	
9	Ditto 6 ...	Ditto ...	15	...	...	...	...	52	1	6	16	29	...	...	243	4	45	...	47	...	271	
10	Ditto 7 ...	Ditto ...	21	...	...	14	6	20	4	12	17	65	...	...	160	15	42	...	7	...	368	
11	Ditto 7 ...	Ditto ...	12	...	...	2	...	2	2	2	1	22	...	...	93	8	23	...	...	...	307	
12	Ditto 8 ...	Ditto ...	7	...	...	6	6	12	2	1	14	9	40	17	57	10	26	...	...	...	104	
13	Ditto 16 ...	Ditto ...	3	...	...	2	3	5	2	5	5	17	76	30	106	2	4	...	...	...	33	
14	Ditto 16 ...	Ditto ...	6	...	...	2	...	2	...	...	6	2	9	...	9	...	17	...	...	...	78	
15	Ditto 14 ...	Ditto ...	6	...	...	4	2	6	...	2	2	11	...	...	62	2	13	...	...	...	84	
16	Ditto 17 ...	Ditto ...	21	...	...	6	10	16	8	13	30	90	...	...	184	5	88	1	...	...	202	
17	Ditto 14 ...	Ditto ...	14	...	...	27	22	49	3	9	22	36	110	64	174	12	26	...	6	19	162	
18	Ditto 15 ...	Ditto ...	5	75	...	3	6	9	3	1	11	5	47	21	68	6	30	...	...	...	89	
19	Ditto 13 ...	Ditto ...	8	...	...	7	2	9	2	4	17	23	41	6	47	3	10	...	...	...	165	
20	Ditto 13 ...	Ditto ...	12	...	...	13	16	29	2	2	20	42	103	22	125	9	28	...	...	...	223	
21	Ditto 12 ...	Ditto ...	6	...	...	12	3	15	3	3	16	23	51	10	61	1	10	...	...	...	101	
22	Ditto 12 ...	Ditto ...	12	...	...	7	25	32	1	5	19	50	129	31	160	9	35	...	...	...	235	
23	Ditto 12 ...	Ditto ...	16	...	...	19	21	40	3	9	36	45	158	52	210	9	49	...	...	...	271	
24	Ditto 9 ...	Ditto ...	12	...	...	3	5	8	...	4	8	21	61	50	111	...	49	...	...	15	179	
25	Ditto 8 ...	Sample plot ...	40	...	...	15	24	39	8	4	24	101	138	127	265	2	138	...	...	...	597	
26	Ditto 10 ...	Linear survey ...	13	...	...	8	19	27	5	4	10	7	39	13	52	1	64	...	...	...	144	
27	Ditto 11 ...	Ditto ...	10	...	...	19	13	32	3	4	12	6	40	27	67	2	42	...	...	...	75	
28	Ditto 11 ...	Ditto ...	7	...	...	16	23	39	6	6	15	11	75	24	99	...	12	...	...	...	55	
	Total North Bilin ...	...	306	75	...	199	234	541	69	114	342	718	1.117	494	2,874	133	960	3	60	40	4,747	
29	South Môkka 1 ...	Linear survey ...	3	.	1a	1	5	6	...	2	1	22	17	10	27	...	11	...	...	...	30	a Girdled in 1883.
30	Ditto 1 ...	Ditto ...	12	...	1a	6	18	24	1	2	13	32	29	79	108	...	31	1	...	...	217	
31	Ditto 7 ...	Ditto ...	6	..	...	3	9	12	1	...	5	26	95	42	137	...	13	...	...	...	84	
32	Ditto 8 ...	Ditto ...	2	5	...	1	4	5	...	...	2	18	50	24	74	...	4	...	...	...	38	
33	Ditto 8 ...	Ditto ...	8	...	4b	11	15	26	...	...	7	36	108	88	196	...	12	...	...	...	128	b Girdled in 1882.
34	Ditto 9 ...	Ditto ...	12	...	2b	6	17	23	1	8	7	37	78	40	118	3	49	2	...	...	200	
35	Ditto 2 ...	Ditto ...	7	...	3a	3	4	7	...	...	12	44	109	60	169	2	27	...	...	...	57	

APPENDIX H.

Pegu Circle, Môkka Bilin Reserve.

No. of survey.	Block and number of compartment.	Whether linear survey or sample plot.	Area. A.	Area. D.	Sound girdled teak trees.	Unsound teak trees. Above 1 foot diameter.	Unsound teak trees. Below 1 foot diameter.	Unsound teak trees. Total unsound teak trees.	Sound teak trees. Above 2½ feet diameter.	Sound teak trees. 2 to 2½ feet diameter.	Sound teak trees. 1½ to 2 feet diameter.	Sound teak trees. 1 to 1½ feet diameter.	Sound teak trees. Below 1 foot in diameter. Dominant.	Sound teak trees. Below 1 foot in diameter. Suppressed.	Sound teak trees. Below 1 foot in diameter. Total.	Other trees 1 foot in diameter and above. Pyinma.	Other trees 1 foot in diameter and above. Pyingado.	Other trees 1 foot in diameter and above. Kanyin.	Other trees 1 foot in diameter and above. Ingyin and thitya.	Other trees 1 foot in diameter and above. In.	Other trees 1 foot in diameter and above. All others.	Remarks.
36	South Môkka 2 ...	Linear survey ...	4	...	...	...	...	...	...	...	...	2	7	8	15	2	15	...	...	...	45	
37	Ditto 3 ...	Ditto ...	10	...	..	4	3	7	...	...	9	25	42	25	67	...	36	...	...	...	121	
38	Ditto 4 ...	Ditto ...	10	...	...	10	29	39	...	...	6	49	105	55	160	3	26	...	...	...	125	
39	Ditto 4 ...	Ditto ...	4	...	...	3	4	7	...	.	7	10	25	14	39	1	13	...	...	...	50	
40	Ditto 6 ...	Ditto ...	18	...	...	6	11	17	3	13	16	33	79	52	131	1	78	3	...	...	108	
41	Ditto 5 ...	Ditto ...	7	...	2*a*	2	18	20	1	2	2	12	49	20	69	4	8	...	...	...	73	
42	Ditto 15 ...	Ditto ...	9	...	1*b*	5	29	34	2	4	7	18	120	50	170	2	35	1	...	...	130	*a* Girdled in 1883.
43	Ditto 15 ..	Ditto ...	3	...	...	2	9	11	...	2	3	13	38	20	58	1	6	...	...	...	47	*b* Girdled in 1882.
44	Ditto 16 ...	Sample plot ...	6	...	3*b*	5	8	13	1	...	3	10	36	6	42	2	15	...	...	...	98	
45	Ditto 16 ..	Linear survey ...	5	...	...	1	6	7	1	2	3	8	71	35	106	2	28	...	...	...	58	
46	Ditto 17 ...	Ditto ...	2	...	...	1	4	5	1	1	..	1	6	3	9	1	11	...	...	...	18	
47	Ditto 17 ...	Ditto ...	There was no teak on this survey and the other trees were not counted. The area was 4 acres.																			
48	Ditto 10 ...	Ditto ...	11	5	3*c*	11	17	28	1	1	17	26	88	35	123	1	37	...	...	30	38	*c* Girdled in 1881.
49	Ditto 10 ...	Ditto ...	11	.	2*c*	12	11	23	4	...	7	20	58	42	100	2	41	...	13	6	93	
50	Ditto 12 ..	Ditto ...	8	..	...	4	2	6	...	2	6	23	50	42	92	1	20	...	...	...	52	
51	Ditto 12 ...	Ditto ...	6	...	1*d*	6	7	13	1	1	6	19	46	12	58	1	13	...	1	...	47	*d* Girdled in 1880.
52	Ditto 13 ...	Ditto ...	9	...	...	2	4	6	5	6	8	8	83	28	111	2	32	8	1	...	141	
53	Ditto 11 ...	Ditto ...	8	..	...	3	4	7	4	7	16	22	50	54	104	7	33	...	1	...	137	
54	Ditto 18 ...	Ditto .	13	...	2*d*	14	8	22	4	4	21	13	69	71	140	2	34	...	7	...	170	
55	Ditto 18 ...	Ditto ...	3	...	..	4	3	7	...	1	6	2	13	15	28	3	19	...	...	...	57	
56	Ditto 14 ...	Ditto ...	17	...	2*d*	3	3	6	2	3	20	73	86	57	143	1	71	...	...	...	147	
57	Ditto 20 ...	Ditto ...	8	...	..	7	4	11	4	1	9	39	75	48	123	...	45	...	...	...	58	
58	Ditto 21 ...	Ditto ...	6	.	...	14	1	15	4	2	7	10	17	11	28	...	24	...	...	...	53	
59	Ditto 19 ...	Ditto ...	3	...	...	2	1	3	...	...	5	6	3	1	4	1	17	...	...	...	77	
60	Ditto 19 ...	Ditto ...	5	...	...	6	6	12	3	...	7	15	27	17	44	1	14	...	...	...	17	
61	Ditto 19 ...	Ditto ...	3	...	...	1	2	3	...	1	5	4	2	1	3	1	9	...	...	...	71	
62	Ditto 22 ...	Ditto ...	16	...	1*e*	6	13	19	...	1	20	42	95	63	158	11	43	...	...	...	264	*e* Girdled in 1874.
63	Ditto 24 ...	Ditto ...	7	...	..	7	5	12	...	2	10	17	13	6	19	3	25	...	...	.	124	
64	Ditto 24 ...	Ditto ...	8	...	..	2	..	2	1	3	5	7	3	5	8	1	45	...	...	...	119	
	Total South Môkka ...	...	270	10	28	174	284	458	45	71	278	744	1,842	1,139	2,981	62	940	15	23	36	3,272	
	Grand Total of both blocks ...	...	576	85	28	373	618	999	114	185	620	1,462	2,959	1,633	5,855	195	1,900	18	83	76	8,019	
	Average per 100 acres, North Bilin ...	.....	...	..	..	..	...	176	22	37	111	234	..	...	937	1,937						
	Average per 100 acres, South Môkka	.....	...	...	...	64	105	169	16	26	102	274	680	420	1,100	1,604						

APPENDIX I.

Tenasserim Circle.

Number of logs imported, by the principal thitgaungs, during the year 1882-83.

No.	Names.	Number of logs entered.
1	Ko Bauk	13,766
2	Ko Taw A	13,106
3	Maung Kyi	6,293
4	Ma Bwin	4,799
5	Myin Mo Taga	4,391
6	Ko Kugale	4,039
7	Ko Kay	3,281
8	Ko Kye	2,598
9	Ko Pôn	2,357
10	Ko Tha Ya	2,225
11	Ko Aung	2,067
12	Maung Pan	2,007
13	Maung Shwe Po	1,983
14	Maung Bau	1,264
15	Ko Tu	1,085
16	Ko Shwe Maung	859

APPENDIX J.

Tenasserim Circle.

List showing the names of the principal exporters of teak from 1st April 1882 to 31st March 1883.

Name of firm.	Tons.	Remarks.
Bombay Burma Trading Corporation, Limited	24,072	
Messrs. Strang, Steel and Co.	18,926	
Messrs. J. D. Finlay, Bodeker and Co.	11,630	
Messrs. A. F. Fouesr and Co.	6,460	
Messrs. V. Vintson and Co.	3,707	
Messrs. H. Kruger and Co.	2,010	
M. Bullub Dass	10,091	
Bugwan Dass	6,978	
Total	83,874	

APPENDIX K.

Pegu Circle.

Selling rates in home market for 1882-83.—Churchill and Sims.

		£ s. d.		£ s. d.
April	1882	13 0 0	to	15 0 0
May	"	13 0 0	to	15 0 0
June	"	13 0 0	to	15 0 0
July	"	13 0 0	to	15 0 0
August	"	13 10 0	to	16 0 0
September	"	13 10 0	to	16 0 0
October	"	13 10 0	to	16 0 0
November	"	13 10 0	to	16 0 0
December	"	13 10 0	to	16 0 0
January	1883	13 10 0	to	16 0 0
February	"	14 10 0	to	16 0 0
March	"	14 10 0	to	16 0 0

Average of sales at Rangoon Central Depôt, 1882-83.

Month.	Class I. Per ton.	Class II. Per ton.
	Rs. A. P.	Rs. A. P.
April 1882	*Nil.*	*Nil*
May "	57 1 8	40 3 11
June "	65 9 10	47 10 5
July "	52 14 2	32 8 11
August "	78 2 8	53 9 10
September "	74 6 5	50 0 11
October "	65 7 7	51 3 11
November "	56 1 2	44 10 0
December "	*Nil.*	*Nil*
January 1883	63 4 0	52 11 1
February "	69 6 3	55 0 10
March "	76 4 9	46 15 9

PROGRESS REPORT

ON

FOREST ADMINISTRATION

IN

BRITISH BURMA

FOR

1883-84.

By Lieut.-Colonel W. J. SEATON and H. C. HILL, Esq.,
CONSERVATORS OF FORESTS,

WITH A REVIEW BY THE CHIEF COMMISSIONER, AND THE ORDERS OF THE GOVERNMENT OF INDIA.

RANGOON:
PRINTED AT THE GOVERNMENT PRESS.

1885.

No. 17 F., dated Calcutta, the 6th January 1885

From—A. MACKENZIE, Esq., C.S., Secretary to the Government of India.

To—The Chief Commissioner of British Burma.

I AM directed to acknowledge the receipt of Mr. Kynoch's letter No. 573—30 M., dated the 19th September last, submitting the Report on the Forest Administration in British Burma for the year 1883-84, with your Resolution thereon.

Area and boundaries.

2. The formation of reserves has been steadily continued during the year under review, the changes in the areas being as follow :—

	Forest area.	Taungya area	Total.
	Square miles.	Square miles.	Square miles.
On the 1st April 1883	3,029	398	3,427
Added during the year	318	14	332
Total on 1st April 1884 ..	3,347	412	3,759

A portion of the additions is due to corrections of areas previously reserved. The totals are distributed as follows between the two Circles :—

Circle.	Forest area	Taungya area.	Total.
	Square miles	Square miles.	Square miles.
Pegu	2,640	400	3,040
Tenasserim	707	12	719

The proportion of reserved forests to the total area of the province comes to only 4 per cent., and it is satisfactory to notice that further reservations were contemplated at the close of the year. It is also hoped that more rapid progress will now be made in the formation of village forests than seems to have been practicable during the past year. If the difficulties in creating State cutch reserves should prove to be unsurmountable, the protection of extensive areas should be secured in some other suitable way.

3. An enquiry was made during the year in order to ascertain the effects of reservation on the condition of the taungya-cutting Karens. His Excellency the Governor General in Council is glad to notice that, in your opinion, the arrangements so far made are fair, and that the Karens do not really suffer in prosperity in consequence of reservation.

4. It is reported that in the Pegu Circle boundaries extending over a length of 1,596 miles have been actually demarcated, and that 223 miles remain to be done. In the Tenasserim Circle all the sanctioned reserves have been demarcated. These results are satisfactory, but it should not be overlooked that the demarcation is as yet of a temporary nature, that the boundary boards must ultimately in many cases be replaced by more substantial boundary marks, and that it will be necessary to clear many boundary lines. These measures may, however, stand over until the work on the present lines has been completed throughout the province.

Surveys and Working-Plans.

5. The Topographical Survey Department has surveyed, during the year, an area of 221 square miles on the 4″ scale, at a cost of Rs. 319 per square mile, and 52 square miles on the 2″ scale at a cost of Rs. 175 per square mile, or a total area of 273 square miles, all situated in the Tharrawaddy Division. The cost is still heavy, but the difficulties to be surmounted are described as quite exceptional. A special survey of Tôndaung near Thayetmyo, extending over an area of 3½ square miles, was also done during the year. On the whole, the results of the operations are much more satisfactory than those of the previous year.

6. A great improvement has also taken place in the system followed by the Working-Plans Division, which has enabled the officer in charge to collect the necessary data for the Thônzè Reserve, covering an area of 109 square miles, against 24 square miles examined during the previous season. A business-like Working-Plan for the Thônzè Reserve has been drawn up, fixing a maximum yield of 1,000 teak trees a year, and providing for the reproduction of that tree by natural means and by taungya plantations. It is hoped that the area to be examined in 1884-85 will be further increased, while the cost per square mile will be correspondingly reduced.

Protection of the Forests.

7. The following table shews the number of breaches of forest rules which were brought to notice during the year :—

Circle.	Number of new cases			Percentage of convictions to total number of cases decided by the Courts.
	Taken into Court.	Compounded.	Total.	
Pegu	116	56	172	87
Tenasserim	77	1	78	86
Total ..	193	57	250	87

Although these figures show an increase on those of the previous year, they are still low, compared with the area of forests under protection. The increase is largely due to increased timber thefts on the Tenasserim rivers. It is said that the rules passed under the Burma Forest Act are now generally understood by the people.

Fire Conservancy.

8. The results of fire protection, as compared with those of the previous year, were as follow :—

Circle.	Area, in square miles.			Percentage of failures to area attempted.	Cost per square mile.	Proportion of area under fire protection to total area of Reserves, in per cent.
	Attempted.	Failures.	Protected.			
					Rs.	
Pegu ..	164	3	161	2	67	6
Tenasserim ...	122	22	100	18	31	17
Total in 1883-84 ...	286	25	261	9	54	9
Do. 1882-83 ...	211	31	180	15	70	7

A distinct improvement is apparent during the year under review; the area protected is larger, and the percentage of failures and the cost smaller, than in the previous year, notwithstanding an unfavourable season. The area attempted comes, however, to only 9 per cent. of the total area of the reserves.

Cultural Operations

9. Good progress has been made during the year in sowing and planting, as will be seen from the following table :—

	Area, in acres.		
	At the commencement of the year.	Added during the year.	At the close of the year.
Regular plantations	3,585	50	3,635
Taungya "	5,131	1,328	6,459
Other cultural operations	2,596	725	3,321
Total ...	11,312	2,103	13,415

Of the additions, 1,939 acres were made in the Pegu Circle and 164 in Tenasserim, bringing the totals in the two Circles up to 11,731 and 1,684 acres, respectively. The additions are 982 acres in excess of those of the previous year; they are principally stocked with teak, but a good deal of cutch has also been planted, as well as other trees. His Excellency in Council notices the favourable progress of these operations with special satisfaction, as the forests in British Burma will hereafter be called upon to yield far larger quantities of teak than they can yield at the present time, apart from the fact that the planting operations provide suitable employment for the Karens and others living in and near the reserves. The average cost of taungya plantations stands now at Rs. 9 an acre, which is low.

Girdling Operations

10. In the Pegu Circle the girdling extended to 16,305 teak trees and 2,868 trees of other kinds. In the Tenasserim Circle no teak trees, but 1,910 trees of other kinds were girdled. Of the teak trees girdled in Pegu, 6,700 were standing inside the reserves. The total number of teak trees girdled is 305 in excess of Mr. Brandis' forecast of 1880.

Yield of the forests.

11. The yield of the forests is summarized as follows in paragraph 18 of your Resolution on the Report :—

	Timber extracted, in tons.		
	Teak.	Other timber	Total
By Government Agency	34,404	5,537	39,941
By purchasers and under trade permits	2,507	66,048	68,555
Under free grants	337	572	909
By lease holders	3,200	1,252	4,452
Total	40,448	73,409	113,857

There has been a decrease in the outturn of teak amounting to 7,878 tons, and an increase of 23,238 tons in other timber, or a net increase of 15,360 tons. The falling off under teak is chiefly due to unfavourable floods, and the increase under other woods to the high prices of teak ruling during the year.

Foreign timber and exports of timber.

12. The imports of foreign timber into British Burma and the exports are given as follow :—

Imports	...	169,400 tons in Tenasserim, and 47,835 logs in Pegu.
Exports	...	158,408 tons, valued at Rs. 1,58,96,271.

The imports from Upper Burma, Siam, &c., were the largest which have ever occurred in any one year, and this increase is due to the high price of teak. Now that the rates have fallen about 40 per cent., a re-action is likely to set in.

Financial Results

13. The financial results were as follow :—

				Rs.
Receipts	...	...	...	25,09,275
Charges	...	...	..	12,17,823
Surplus	...	...	...	12,91,452

These results are almost the same as those of the previous year, and, considering the decrease in the outturn of teak, they are satisfactory. It is expected that, owing to the fall in the price of teak, the revenue and surplus of the past few years will not be maintained in 1884-85.

General.

14. Looking at the results of the year's working as a whole, they must be pronounced satisfactory. His Excellency in Council is pleased to endorse the acknowledgment of Mr. Hill's and Colonel Seaton's services, and to thank you for the full and appropriate review of the work of the Department.

Appendix showing the discrepancies noticed in the Statements appended to the Report of Forest Administration in British Burma for 1883-84.

FORM No. 50.

(Plantations.)

TENASSERIM CIRCLE :—

The Total Cost on 31st March 1883 of the 778 acres of fully stocked taungya plantations was entered in the Report for 1882-83 as Rs. 4,156; but the Total Cost of these same plantations on 1st April 1883 is given in the present Report as Rs. 4,927.

Under Total Area and Cost on 1st April 1883, 108 acres and Rs. 6,725 of the Mergui Plantation are shown in the present Report as pertaining to Cultural Operations, although they did not appear at all in the Report for 1882-83.

FORM No. 61.

(Sale of Timber and other Produce cut and collected by Government Agency.)

TENASSERIM CIRCLE :—

In the Abstract of "Sold from Depôts," the entries in the column "No. or Quantity" opposite Thitka logs, Teak planks, Pyinma Scantlings, Padauk planks, and Teak drift logs, represent *tons* and not number.

FORM No. 62.

(Account of Timber and other Produce.)

The entries under "Received from forests in Depôts" and "Received from forests and Sold locally" (on the Dr. side) do not agree, as they should (*vide* paragraph 266 of the Forest Department Code), with the corresponding entries in Forms Nos. 60 and 61, respectively.

FORM No. 65.

(Value of Timber and other Produce at Sale Depôts.)

TENASSERIM CIRCLE :—

The number and cubic feet of the Timber Stock on hand at the close of the year do not agree, as they should, with the corresponding entries under "Closing Balance" in Form No. 62.

W. B. G.—Home Department Press—No. 6—10-1-85—215.

REPORT

ON

THE FOREST ADMINISTRATION

OF

BRITISH BURMA

FOR

The year 1883-84.

RANGOON:
PRINTED AT THE GOVERNMENT PRESS.

1884.

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RESOLUTION

ON THE

FOREST ADMINISTRATION

OF

BRITISH BURMA

FOR THE YEAR 1883-84.

Extract from the Proceedings of the Chief Commissioner, British Burma, in the Forest Department,—No. 30M., dated the 9th September 1884.

READ—

Reports of Conservators on the Administration of Forests in the Tenasserim and Pegu Circles for the year 1883-84.

RESOLUTION.—The report on the Tenasserim Circle was received on the 1st July and that on the Pegu Circle on the 10th.

General result of the forest work of the year.

To the area of reserved forests in the province there were added during the year 157,056 acres, or 245·4 square miles of new reserves, besides 59 square miles accounted for by rectifications of the previously estimated areas of certain already existing reserves. Proposals for the reservation of further areas in Tenasserim and in Pegu were under consideration when the year closed. The area successfully protected from fire was 167,004 acres against 115,213 acres in the previous year. The cultivation of teak in Karen clearings (taungyas) was continued in both circles and 961 acres were added to the area already planted up in this way, which now amounts to 6,054 acres. The numbers of trees girdled during the year were 16,305 teak and 4,808 of other kinds against 17,596 teak and 6,195 of other kinds in the year before. The quantity of teak extracted from the forests was 40,448 tons, or 7,878 tons less than in 1882-83. The gross revenue of the Department for the year was Rs. 25,09,275, and the expenditure Rs. 12,17,823, compared with Rs. 25,03,896 and Rs. 12,28,955 in 1882-83. The net revenue of the year was thus Rs. 12,91,452 as against Rs. 12,74,941 in the preceding year.

Reservation of Forests.

2. During the year 245·4 square miles were added to the reserved area, which amounted on the 31st March 1884 to 3,846½ square miles exclusive of 412 miles set apart for the use of Karen taungya-cutters as shown below :—

	Area in square miles.		
	Forest area.	Karen areas.	Total.
Tenasserim Circle...	707½*	12	719½
Pegu Circle	2,639†	400	3,039
Total ...	3,846½	412	3,758½

In the Pegu Circle proposals were in a more or less advanced state for the reservation of about 1,000 square miles, of which some 18 square miles consist of cutch reserves in the Prome district. In the Thayetmyo district it is now proposed to create village cutch forests, and draft rules for their control and management have been prepared by the Commissioner and are at present under the consideration of the Conservator. The west side of the Henzada district, where it touches on Arakan, was examined during the year by the Divisional Officer with a view to the selection of teak reserves. From the report submitted to the Conservator it would appear that neither teak nor other forest trees of value are to be met with except over a small portion of this area.

3. Proposals for the reservation of some 280 square miles of forest in the Toungoo district have been referred back to the Deputy Commissioner for further report. In September 1883 Commissioners of divisions were requested by the Officiating Chief Commissioner "to take every opportunity of ascertaining the "state of the taungya-cutting Karens in their divisions, and the effect on their "prosperity of the forest reserves, whether they really know what is being done, "and whether the compensation awarded is sufficient, &c." Nothing of importance has been elicited by this enquiry. Mr. Bernard does not think that the taungya-cutting Karens of this generation will ever be satisfied with our forest arrangements. But he considers these arrangements to be in the main fair, and to be the least aggressive that can be accepted in the interests of the community and of future generations; he believes also that the Karens do not really suffer in prosperity by reason of the reserves.

Demarcation of reserves.

4. The information desired by the Government of India as to the progress of demarcation work has been furnished by the present reports. The length of boundaries demarcated in the Pegu Circle to 31st March 1884 was 1,596 miles, and 223 miles still remained to be marked off on the spot. A sum of Rs. 5,092 was expended in the erection of new and the repairing of old boundary marks. In Tenasserim Circle Rs. 1,438 were expended. During the year the boundaries of the Mintha reserve were finally demarcated at a cost of Rs. 6-9-4 per mile. The length of boundary

* Includes 20 square miles added to area of West Mèpale reserve after survey.

† Includes 39 square miles added to area of Thônzè reserve after survey.

so demarcated was 65 miles, in which are included 14 miles of boundary line of area set apart for Karens.

Village forests.

5. No progress has yet been made in the matter of constituting village forests. Draft rules have been prepared for the management of such forests, but a report is still awaited from the Commissioner of Pegu in regard to the localities in the Hanthawaddy and Pegu districts where it has been proposed that village forests should be formed. Further consideration of the matter has been postponed until large scale cadastral maps of the localities are ready.

Forest surveys.

6. The forest survey work of the season was started on the 8th December 1883 and lasted to 16th May 1884, when the rains set in and stopped it. The operations of the detail survey were carried on in the Thônzè, Kôn Bilin, Kadin Bilin, Môkka, and Minhla reserves, all of which, except a small portion of the Minhla reserve, were completely surveyed on the 4-inch scale. The total work done was 221 miles of reserve on the 4-inch scale, besides 52 miles on the 2-inch scale, of unreserved forest. The total cost of several processes of survey on the 4-inch scale appears to be Rs. 319½, and on the 2-inch scale Rs. 175½ per square mile. The total outlay of Rs. 1,03,847 divided by the total outturn of 277 miles completely surveyed gives an average cost of Rs. 375 per square mile. The cost of Native establishment in Burma is found to be six times as heavy as it is in India, and the contingencies are more than double. The cost of survey in 1883-84 was swelled by an item of Rs. 6,000 for the purchase of elephants.

Working plans.

7. By the Working Plans Division were collected all the data required for a working plan of the Thonzè reserve (108·9 square miles). A complete valuation of the forest was made with the result that the quantity of mature teak was found to have been over-estimated by the linear survey system formerly employed. The rate of growth of a number of teak trees was tested by Pressler's growth-gauge and it was found that a diameter of two feet was attained on the average in 106 years in moist and in 138 years in dry forest. The cost of preparing the working plan amounted to Rs 142 per square mile, but it is hoped that in future the work will proceed more rapidly and will cost only about half that sum. Last year the health of the establishment was very bad.

Mr. Oliver's report sketches a plan for working the Thônzè reserve during the next 150 years, by the end of which period the youngest teak sapling now in the forest will have reached maturity. The term of 150 years is divided into five periods of 30 years each. During the first period the yield of the forest ought, Mr. Oliver estimates, to reach seven or eight annas per acre; even with present reduced prices of teak the yearly outturn of the forest should reach six annas per acre. In the later periods, when the young stock and the plantations come to maturity, the revenue yield will be higher.

The working Plans Division cannot break ground in the Tenasserim Circle for some years. The Chief Commissioner will therefore be glad to receive at an early date proposals for girdling teak in Tenasserim forests which recent valuation surveys have shown to be rich in mature trees.

Protection of Reserved Forests.

Prosecutions for forest offences.

8. The number of prosecutions for forest offences has considerably increased. In the Tenasserim Circle a series of serious timber thefts came to light, and special agency has since been employed, at the urgent request of timber importers, to keep down this kind of crime. In the Pegu Circle a large number of petty offences were compounded for money payments as allowed by law. It is not advisable that comparatively innocent offenders against forest rules, such as ignorant Karens, should be subjected to criminal prosecutions for first offences.

Protection against fire.

9. In Tenasserim the arrangements for the protection of reserves against fire were successful in the case of 64,020 acres out of an area of 78,452 acres of which the protection was attempted. The outlay involved was Rs. 3,106. The dry season was unusually prolonged and many fires occurred. Those in the Kahilu reserve are attributed by the Conservator to the opening of a public road through the reserve. The Chief Commissioner notes with satisfaction the help rendered by the neighbouring villagers in the protection of the Bilakatkyi reserve.

Better results attended the fire-protection measures in the Pegu Circle. Out of 104,755 acres, the protection of which was attempted, 102,984 acres, or 98 per cent. of the whole, were successfully protected at a cost of Rs. 10,865, or an average of 1 anna 9 pies per acre. Numerous fires occurred however. Some of them were trifling, and in the case of others the fire was promptly suppressed. The only really serious disaster happened to the Chaungzauk reserve, in which three fires occurred and 200 acres of plantation were injured in addition to other damage. In the following table particulars of the fire-protection operations of the past three years are shown :—

Years.	Area in acres.		Cost.
	Attempted.	Successfully protected.	
			Rs.
1881-82	115,982	114,076	11,357
1882-83	185,246	115,218	12,490
1883-84	183,207	167,004	13,971

Reproduction and Improvement of Forest Growth.

Teak plantations.

10. No expenditure was incurred during the year on the three small teak plantations in the Ataran and Salween divisions ; their area remains as before at 23 acres, and it is not intended to enlarge them. Fifty acres were added to the area of the Magayi plantation at a cost of Rs. 815 ; of these 30 acres cleared and planted by Shans succeeded admirably, the work costing on an average Rs. 13-1-4 per acre. The other 20 acres were cleared partly by the steam tree-feller and partly by coolie labour, but only about 16 acres were planted ; of these about 10 acres were found at the beginning of 1884 to be fully stocked with teak plants. The cost of the work was very high however, averaging Rs. 42-3-2 per acre; this high rate was apparently due to the use of the tree-feller. The regular teak plan-

tations in the Pegu circle now cover an area of 3,612 acres, apart from taungya plantations.

Taungya teak cultivation.

11. Greater progress was made in the Tenasserim Circle than in the year before with the cultivation of teak by the taungya system. The area planted during the year was 158 acres, of which 130 acres are fully and the remainder partially stocked with plants, at an average cost of Rs. 12-13-8 per acre. This is a little higher than the cost of the work in the year before. The Chief Commissioner notes with satisfaction the success obtained by the Karens living within the West Salween reserves. It is most desirable in every way that employment of this kind should be found for the Karens. The taungya teak plantations in Tenasserim now cover 1,547 acres, of which 908 are fully and 639 imperfectly stocked with young teak. In the Pegu Circle 959* acres were added to the area of taungya teak plantations at an average cost of Rs. 9-14-7 per acre. The greatest success seems to have been met with in Tharrawaddy. The total area in the circle is now returned as 4,463 acres.

Taungya-cultivation of cutch.

12. Besides the cultivation of purely teak taungya plantations, about 81 acres were planted up with cutch by the same system in the Chaungzauk reserve, Prome division, besides the 162 acres of teak already alluded to. The cost of this particular operation, which was successful, was only Rs. 5-3-7 per acre, or little more than half the average cost of the general teak taungya-cultivation in the circle for the year. Satisfactory results also attended the planting of 124½ acres with cutch in two of the Tharrawaddy reserves. The cost in this case was Rs. 8-1-3 an acre.

The total area planted up on the taungya system during the year was thus 1,164 acres, or nearly the average amount of 1,200 acres which Mr. Brandis recommended should be attempted annually. In 1881-82, 635 acres and in 1882-83, 608 acres were planted.

Minor cultivation.

13. The minor cultivation of exotic and other trees was continued as in former years.

Para India-rubber (*Hevea brasiliensis*).

No more of the *Hevea* trees at Mergui have died. Several of them flowered during the year and from one some seeds were got. They are reported to be growing well.

Castilloa elastica.

Out of twelve cuttings of *Castilloa elastica* obtained from Ceylon only four have survived; they were not received at the proper season.

Ceara rubber trees.

White-ants continued to destroy the older *Ceara* rubber trees at Mergui, but there are still a large number of both plants and young trees in the garden.

Chevannesia esculenta.

The number of plants of *Chevannesia esculenta* at Magayi has increased. They thrive, but grow slowly and are not likely ever to be profitable as rubber-yielders.

* Includes 162 acres planted along with 81 acres of cutch in Chaungzauk reserve, Prome division.

Ficus elastica.

The plants of *Ficus elastica* at Magayi and Tharrawaddy, some 56 in number, seem to be growing well.

Vanilla.

The number of plants of vanilla has increased considerably at Magayi, but the few pods that have appeared have been eaten by squirrels and ants.

Mahogany.

A good many of the Mahogany trees at Amherst died from the attacks of insects. The experiment does not seem promising. The trees in the Tharrawaddy garden fared better.

Coffee.

The coffee plants growing inside the Pyunchaung reserve, Toungoo division, have not thriven. The soil seems unsuitable. Those on the other hand at Thandaung are flourishing, some 3,550 in number.

Tea.

At Thandaung 756 tea plants have grown into fair bushes.

Cinchona.

At the Thandaung plantation nothing was done during the year beyond weeding the place and maintaining the nurseries in which there are some 27,000 seedlings of three varieties of cinchona. A sanitarium for troops has now been established at Thandaung and the arrangements for the control and protection of the plantation may demand alteration.

Tharrawaddy and Mergui forest gardens.

The maintenance of the Tharrawaddy forest garden during the year cost Rs. 2,805, but it is doubtful if the results are proportionate to this expenditure. The outlay on the forest garden at Mergui was Rs. 1,549, and that garden is doing well.

It will be interesting to learn the effect of the experiment (described at paragraph 32 of Colonel Seaton's report) of planting *kyibin* seed (*Barringtonia racemosa*) in the Sinzwè reserve, with the view of killing kaing grass.

Girdling Operations.

14. In obedience to instructions which he had received to reduce expenditure, the Conservator of the Tenasserim Circle suspended teak-girdling operations throughout the year. Some hundreds of trees of other kinds were girdled, principally *pyinma*, and the girdling of teak has since been resumed. In Pegu 16,305 teak trees were girdled, also a large number of pyinma trees, and some trees of other varieties. Of the teak trees girdled 6,700 were standing inside reserves. The total number of teak trees girdled in the Pegu Circle exceeded Mr. Brandis' forecast by 1,805. The excess occurred entirely outside reserves.

Revenue.

15. The forest revenue of the year amounted to Rs. 25,09,275, compared with Rs. 25,03,896 in 1882-83. In the Pegu Circle there was an increase in revenue of Rs. 2,24,897, while in Tenasserim there was a decrease of Rs. 1,19,518.

The receipts under each head for the two years are shown in the following table :—

		1882-83.	1883-84.	Increase or decrease.
		Rs.	Rs.	Rs.
From timber and other produce removed from the forests by Government agency		20,23,913	19,67,530	- 56,383
From timber and other produce removed from the forests by consumers or purchasers.	Timber	1,66,269	2,07,998	+ 41,729
	Firewood and charcoal ...	2,696	1,226	- 1,470
	Bamboos	6,035	4,521	- 1,514
	Grazing and fodder grass	173	165	- 8
	Other minor produce ...	80,179	89,109	+ 8,930
Confiscated, drift, and waif wood		1,28,224	1,66,569	+ 38,345
Duty on foreign timber and other foreign produce ...		69,373	40,219	- 29,154
Miscellaneous		27,084	31,988	+ 4,904
	Total ...	25,08,896	25,09,275	+ 5,379

16. The most noticeable matter in those figures is the falling off under the first head. The decline is more apparent than real however, the revenue derived in 1882-83 in Tenasserim from this source having been abnormally high. A heavy fall took place in the price of timber at Moulmein owing to the Indian markets becoming overstocked, and the outturn of teak from the Tenasserim forests was much below that of 1882-83. The Conservator anticipates that this branch of the revenue of his circle will be still further adversely affected in the coming years by large quantities of undersized teak from the Siamese forests being thrown upon the Moulmein market. These forests have now been stripped of nearly all first class trees, and the smaller timber is being actively worked out. In connection with this subject an important note by Colonel Seaton will be found at page 27 of the Tenasserim report on "the teak forests on the feeders of the Salween river beyond the frontier." The Chief Commissioner has caused copies of this note to be distributed amongst the Moulmein timber importers.

17. The expenditure of the year compared with that of 1882-83 was as follows :—

	1882-83.	1883 84
	Rs.	Rs.
(A) Conservancy and works	9,73,746	9,39,711
(B) Establishment	2,55,209	2,78,112
	12,28,955	12,17,823

The net revenue of the respective years was—

	Rs.
1882-83	12,74,941
1883 84	12,91,452

There was (amongst other reduced expenditure) a large saving in the estimated expenditure in Tenasserim on account of the short receipts of timber from the Government forests. A decrease also occurred under the same head in Pegu, but this was merely due to a quantity of the timber brought to depot not having been paid for when the year closed. There was nothing special or unusual in the expenditure under other heads.

18. The following statement shows the quantity of timber, both teak and other sorts, brought out from British forests during the year :—

Timber removed from the forests.

	Teak.	Other kinds.	Total.
	Tons.	Tons.	Tons.
By Government agency	34,404	5,537	39,941
By purchasers and under trade permits	2,507	66,048	68,555
Under free permits	337	572	909
By leaseholders	3,200	1,252	4,452
Total ...	40,448	73,409	113,857
Outturn of 1882-83	48,326	50,171	98,497
Increase in 1883-84	...	23,238	15,360
Decrease in 1883-84	7,878	...	...

These figures show a decrease of 7,878 tons of teak on the quantity brought out in 1882-83, due partly to diminished yield from the Tenasserim forests, explained in paragraph 42 of the Conservator's report, and partly to the neaping of a large number of logs on the Pegu side, where the rainfall was deficient at an important crisis of the floating season. The failure to extract so much teak has caused a serious loss of revenue ; for the neaped logs, when brought to market in 1884-85, will fetch 40 per cent. less than they would have fetched last year before the fall in prices. The increase in the quantity of "Other kinds" of timber removed by purchasers and under trade permits was a consequence of the high rates ruling for teak.

19. The quantity of teak from the Siamese and Upper Burma forests received at Kado, near Moulmein, during the year was 169,400 tons, or 28,796 tons more than arrived in the previous year. This quantity is also 24,075 tons greater than the largest quantity yet imported in any one year. Much of the timber was however small and of inferior character.

Foreign teak.

The imports of teak by the Irrawaddy from beyond our frontier were 15,214 logs and by the Sittang 32,621 logs against 15,637 and 35,126 logs by the respective routes in the previous year.

20. The quantity and value of the teak exported from Moulmein to all parts of the world was much below that of the exports in 1882-83, shipments to Europe having fallen off, but this decrease was more than counterbalanced by increased exports from Rangoon. The exports from the province for the year were—

Exports of teak.

	Tons.	Value. Rs.
From Moulmein	90,359	89,90,041
From Rangoon	68,049	69,06,230
Total ...	158,408	1,58,96,271

The greater proportion of this went to the ports of Calcutta and Bombay, only some 27,000 tons in all going direct to the United Kingdom. In 1882-83 the total exports amounted to 151,151 tons of an estimated value of Rs. 1,40,46,610. In that year the direct exports to the United Kingdom amounted to 50,090 tons. It will be seen from these figures that the high prices of teak which ruled throughout 1882-83 were maintained in the year of report. Since the close of 1883-84, however, the price of teak has fallen about 40 per cent.

MISCELLANEOUS.

Changes in forest rules.

21. Rule 8 of the forest rules was recast in such a manner as to make it quite clear that for agricultural and domestic purposes unreserved trees can within certain limits be extracted without payment and without a license, and the privilege was extended to timber required for fishery purposes. After consultation with the Moulmein timber traders certain alterations were made in the rules for the working of the Kado timber depôt. Since the close of the year further changes have been made in the rules with a view to supplying the omission noticed in paragraph 4 of the Pegu Report.

Working of forest rules.

22. The Chief Commissioner would wish that in future reports fuller account should be given of the working of the rules concerning unreserved timbers. From many quarters complaint has been made that the rules press hardly on sawyers and others who supply the local demand for house posts and other timbers. In some districts too the full liberty allowed to agriculturists to procure timber for home use has been restricted through a misunderstanding of the rule. The claims of future generations and the interests of the public revenue forbid any great relaxation of the existing rules, but it behoves Civil and Forest Officers to take care that the rules are understood and to bring to notice any cases in which hardship is occasioned. Bamboos, firewood, fodder, and grass can all be extracted revenue-free from unreserved forests. But the forest duty paid on "timber" and on "minor forest produce" removed from the forests by consumers or purchasers has risen during the past five years from Rs. 1,33,101 in the year 1879-80 to Rs. 2,97,107 in the past year. This item of revenue must be fostered as far as may be possible without hardship to the agricultural classes or to the tribes that live near the forests.

Supply of seeds to other provinces.

23. Seeds of various kinds were supplied during the year to various applicants. Teak seeds were sent to Chittagong, Dehra Dun, Madras, and Orissa; betel-palm seeds to the Government of South Australia; pyinma seeds to the Botanical Gardens at Singapore; and *Chevannesia esculenta* to Madras and Ceylon.

Forest apprentices.

24. Three of the five Burman apprentices at Dehra Dun passed out of the Forest School at the end of 1883, one with the forest-ranger's certificate, the other two without certificates. It was found that the acquaintance of those two with English and mathematics was too imperfect to make it likely that they would profit much by prolonging their stay at Dehra Dun. Their time there has not been thrown away, however, and the Conservator believes they will turn out useful foresters. They have been appointed rangers on Rs. 50 a month, and a rangership on Rs. 80 has been con-

ferred on the apprentice who gained his certificate. There are now three apprentices from Burma at the Forest School, the third having joined in July last.

Health of officers and forest establishments.

25. No mention is made in the report of the health of the controlling forest staff in Tenasserim. Several officers in the Pegu Circle suffered seriously from fever. The health of the subordinate establishments in both circles was with some exceptions satisfactory, only one death having occurred during the year.

Services of officers.

26. Colonel Seaton was in charge of the Tenasserim Circle and Mr. Hill of the Pegu Circle throughout the year. The Chief Commissioner notices that both Conservators are satisfied with the services of all the superior officers of their respective circles. Messrs. Aplin, Oliver, Popert, and Carter have been singled out for special mention. The services of Mr. Oliver have been temporarily lost to the province, a circumstance which will seriously impede the progress of the Working Plans division which he has been directing with much ability for the past two years. The Chief Commissioner acknowledges the good work done by Mr. Hill and Colonel Seaton in managing their circles during the year.

By order of the Chief Commissioner,

E. S. SYMES,

Offg. Secretary.

REPORT

ON

FOREST ADMINISTRATION

IN

THE TENASSERIM CIRCLE

For the year 1883-84,

BY

Lieut.-Colonel W. J. SEATON, Conservator of Forests.

CHAPTER I.

AREA AND BOUNDARIES.

1.—Area.

Increase in area of State reserves.

DURING the year the area of the sanctioned State reserves was increased by the addition of two reserves, aggregating 110 square miles, namely,—

	Sq. miles.
Mintha reserve (mixed forest), South Tenasserim division ...	100
Dagwin reserve (teak and mixed forests), West Salween division ...	10

The area statement has also been increased by 20 square miles, it having been ascertained that the area of one of the Thaungyin reserves had been underestimated to that extent. The total area of sanctioned State reserves in this circle therefore amounts to 719½ square miles, as shown below:—

	Sanctioned up to 31st March 1883.	Sanctioned during 1883-84.	Correction in area of West Mèpalè reserve, East Salween division.	Total area.
	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.
Area of teak and mixed forest reserves	574½	10	20	604½
Area of mixed forest reserves ...	15	100	...	115
Total ...	589½	110	20	719½

Areas proposed for reservation.

2. No addition has to be recorded to the areas proposed for reservation. As noted in the administration report of the previous year, the areas proposed for reservation and awaiting examination by Forest Settlement Officer were—

	Approximate area.
(i) Upper Tavoy reserve	460 sq. miles.
(ii) Upper Yè reserve	320 ditto.

As some months had elapsed since the previous notification in 1882-83, the boundaries of both these proposed reserves were again notified in accordance with section 6 of the Burma Forest Act and the District Civil Officers nominated *ad interim* Forest Settlement Officers; but again neither of these officers were in a position to visit the proposed reserves within the year under review. Paucity

of officers likewise precluded the survey and selection of any additional areas deemed suitable for reservation. The valuable teak tract between Dagwin and Kyauknyat on the Salween, referred to in the previous year's Administration Report, page 23, was again visited by the Divisional Officer, but with the advice of the Civil District Officer submission of proposals was delayed to allow the Karens time to become accustomed to the reservation of the areas already demarcated.

Areas approved and awaiting sanction.

3. The proposals with reference to the proposed Martaban State reserve, 17½ square miles, were the subject of some correspondence during the year, the result being an expression of opinion that it would be better to adopt the boundaries originally proposed by the Conservator and thus protect a larger bamboo-producing area in the interests of the people in the vicinity.

2.—Boundaries.

Final demarcation of boundaries.

4. The boundaries of the Mintha reserve in the South Tenasserim Division, sixty-five miles in length, were demarcated at a cost of Rs. 427-13-11. Demarcation was effected by means of boards of pyinma wood 18 inches by 4 inches by 1½ inches in size, bearing serial numbers in Burmese, and affixed to trees at certain points on the boundaries. The boundaries being all well defined natural boundaries only 110 boards were required, and the expenditure represents chiefly elephant-hire. No final demarcation work was carried on in the West Salween Division, the boundaries of the Dagwin reserve having been demarcated during the previous year in anticipation of sanction.

Inspection of reserves and boundaries and renewal of boundary marks.

5. In the East Salween Division the boundaries of the Winsaw, Mithawe, West Mèpalè, Mekanè Kyaukket, and South Myawadi reserves were inspected by the Divisional Officer, and the remaining reserves were visited by the forest-ranger and subordinate forest establishment in charge. A large proportion of the boards in the West Mepalè and Mèkanè reserves were found in need of renewal, particularly those of the old small pattern which were mostly doubled up and cracked in centre where affixed by nails. Some of the pattern now in use, 18 inches by 4 inches by 2 inches, were also found to have been forced off the trees by rapid growth of bark and the insufficient length of the nails used; others had also swung round to the vertical position by the boring for the nails being too large and admitting moisture. In the Kyaukket reserve a re-adjustment of a portion of the east boundary between the Tiniale and Chibawbo streams was found necessary, and the boards were shifted accordingly. In the West Salween and Ataran divisions the reserves were all visited by either the Divisional Officers or forest-rangers and boundaries in part examined, with the exception of the Pa stream reserve on the frontier for the care of which an additional forest guard was only sanctioned at the close of the year. In the Ônkangyi reserve 23 boards were renewed at a cost of Rs. 6. The boundaries of the Ataran reserves having been carefully examined and boards renewed during the previous year by Mr. Murray, no repairs were found necessary. All the sanctioned reserves in the Tenasserim circle have been finally demarcated.

CHAPTER II.

Surveys, Working Plans, and Annual Plan of Operations.

Examination of the Upper Tenasserim river with reference to its capacity for floating timber and the general resources of the forests in its vicinity.

6. An examination of the Upper Tenasserim river was made by Mr. Palmer, Deputy Conservator in charge of South Tenasserim Division, in December. From Myitta on the Upper Tenasserim river (two marches east of Tavoy) down to Amya, near the Kyezi stream, the boundary between the Tavoy and Mergui districts, the journey was accomplished in a small boat in seven-and-a-half days; thence it occupied ten days to Mergui. Mr. Palmer's report confirms the description and accounts hitherto received of the main features of the river and shows the rocky obstructions and

rapids to be so numerous and of such magnitude as to preclude the floating of thingan boat-hulls and other timber within the entire course of the river between Myitta and Amya, estimated at about 90 miles. Regarding the feasibility of rendering the channel fit for floating purposes, Mr. Palmer states: "Should a good "market for thingan boat-hulls ever be found and thingan to supply the market "could not be elsewhere obtained, it might pay to open out a small channel "all the way down; but even then it would be very doubtful whether men "could be found willing to undertake the risk of bringing down the boat-hulls." The lower part of the river in the Mergui district is comparatively free from obstructions and, in Mr. Palmer's opinion, requires but little to render it perfectly safe for the floating of every description of timber. At present rafts of bamboos are taken down throughout the entire length of the river in the Mergui district, which is estimated at about 225 miles. In regard to forest growth, Mr. Palmer's report shows the hills which shut in the upper part of the river above Amya as being almost wholly occupied by a dense growth of bamboos and the banks as lined by a thin fringe of tree-forest containing a sprinkling of thingan and pyinma trees of apparently no great size. Below the Tavoy district boundary the vegetation differs greatly, the absence of bamboo being conspicuous and tree-forest taking its place for a distance of 30 miles along the banks. Some padauk trees were met with near Amya and various *Hopeas* and evergreen trees of magnificent growth were observed in the stretch of forest below the Tavoy district boundary; but on the whole some disappointment was felt by Mr. Palmer in not meeting with huge tracts of tree-forest and any quantity of thingan trees, these upper forests never having been resorted to for timber except to meet the very limited requirements of the small local Karen and Shan population in the matter of canoes and small boats. Consequent on the rocky nature of the river above Amya, boats it is reported rarely remain serviceable more than three years: this, if correct, will in a measure serve to explain the paucity of thingan trees along the river banks, as doubtless these trees are the first to be resorted to for manufacture of canoes and boats and as such can be navigated down as far as Amya from Myitta; some are doubtless even taken to the villages below Amya. As already stated however the results of Mr. Palmer's visit to the Upper Tenasserim river may be said generally to confirm the reports hitherto current regarding the locality and the rocky character of the river between Myitta and Amya. Thingan for boat purposes has always been reported as more abundant at the sources above Myitta.

Working plans.

7. There being no topographical survey work in reserves and no Working Plans Division in this forest circle, nothing has to be recorded under this head. The condition of many of the teak tracts and quality and growth of timber in others would seem however to call for no immediate recourse to working plans. The Ataran, Hlaingbwè, and Lower Salween forests, aggregating 140 square miles of teak localities, have all suffered heavily from being thrown open in 1829 to private enterprise under licenses to fell all timber down to a minimum girth of only 4 feet. The Upper Salween forests, estimated at 106 square miles, have also suffered, even to the extent of destruction over large areas, by taungya-cultivation consequent on exemption from all forest rules till 1876, while the remaining areas have likewise suffered from the system of permits in force between 1865 and 1870, which granted the right to girdle all teak trees down to a minimum girth of 5 feet. The resources of the Thaungyin teak localities (approximate area, 250 square miles) were likewise considerably impaired by the practice adopted in 1847 of offering the Karens one uniform rate per log for timber delivered at the bank of the Thaungyin river, the Karens naturally enough confining their operations to the smaller marketable trees instead of trees of I class size. Subsequently also, until 1864, the Karens were authorized to girdle a stipulated number of large trees from time to time, but without any control or supervision, the result being the systematic girdling of trees of all sizes and at all times: this and the inroads of unchecked taungya-cultivation for many years sufficiently explain the condition of many portions of the Thaungyin forests. Nevertheless their extent and the quantity and superior quality of the growing material, now fortunately for the greater

part comprised within State reserves, promise much in the future; and hence these reserves would not only benefit by but would also repay a detailed topographical survey and early adoption of carefully-framed working plans. The same may likewise be said of the Sinzwè reserve and the Bilin reserve in the West Salween Division. At present in these two divisions, the East and West Salween Divisions, girdling is carried on in accordance with the plan of operations suggested by the Inspector-General and approved by the local Government, each division having been divided into five blocks, one of which is thrown open in succession for a period of five years for the girdling of all I class marketable teak trees within and without the reserves, subject to certain conditions in the case of the former, it being estimated that a period of twenty-five years will suffice to allow the trees of II class size to attain I class size, and that a certain proportion of the I class trees not being of marketable quality will be left to add to the number of seed-shedding trees. It is not possible to apply this plan of operations to the teak forests in the Ataran Division owing to the great paucity of I class trees of marketable quality as well as of II class trees in many localities, the removal of such trees having been sanctioned under the license system, which only came to an end in 1865. Its adoption would moreover in any case be premature before the expiry of the present thirty-year leases in 1895-96. In the case of the Salween division (proper) its resources in teak are limited to the teak tracts known as the Pandaw and Kolun and those at the sources of the Gyo stream, Kyunmagu, Misan, Kyaukpya, and Nônkamaing streams, all to the east of the Salween. Of these the Pandaw forests are the most extensive but at the same time the most destitute of marketable trees of all sizes, having been subjected to a heavy yearly drain up to the present and worked repeatedly in disregard of the conditions in the lease, which resulted finally in the cancellation of the lease on the 1st April 1884. From the remaining teak tracts only dead and naturally seasoned timber has been extracted, and no girdling having taken place in them since their definite resumption by Government in 1865, a fair proportion of marketable trees is to be found in certain localities, particularly in the Misan and Nônkamaing forests, valuation surveys this year giving as much as 144 I class, 194 II class, and 300 III class on 100 acres. After a further examination proposals will be submitted for girdling a certain number of trees in these forests.

CHAPTER III.

Protection and Improvement.

General Remarks.

Forest legislation.

8. No new legislative measures have to be recorded as having been introduced during the year under review, but it was found necessary on the representation of the Timber Trade Committee of Moulmein to revise Rule 17 and Form No. II of the directions for the management of the Kado timber station published under notification No. 4 (Forests), dated the 10th January 1883. The object of the amendments in the rule was to define more clearly the position of the chaukidars or watchmen with reference to their masters, the licensed occupants of the storage-grounds, and so obviate all doubt as to the intention of the rule, namely, to give effect to the rules and standing orders hitherto in force without introducing any actual change in the previously existing customs and practice. The revised rule as notified on the 27th September 1883 will be found in appendix. In order to place the utilization of timber of the unreserved kinds for works of public utility on the same footing as that of timber for domestic and agricultural purposes, clause 1 of Rule 8 of the rules published under the Forest Act of 1881 was revised in notification No. 52 (Forests), dated the 23rd August 1883, as shown in appendix.

1.—Establishments.

Permanent subordinate establishment.

9. During the year the following additional appointments and changes were sanctioned with effect from the 1st March 1884, except in one case, noted below, on the permanent establishment, involving an increased monthly expenditure of

Rs. 66-4-0 under office establishment, Rs. 36 under depôt establishment, and Rs. 271 in forest establishment, or in all Rs. 373-4-0 less Rs. 27-8-0, the difference between pay of forest ranger, II class, and forest ranger, I class, transferred to the Pegu circle.

Kado Revenue Division.—One clerk on Rs. 175 to Rs. 200, with the designation of "Officer in charge of Kado Subdivision," in lieu of one clerk, I class, from Rs. 100 to Rs. 175, with effect from the 1st April 1884; 18 depôt and guard-house peons and lascars on Rs. 12 per mensem instead of on Rs. 10 per mensem as formerly.

East Salween Division.—One additional forester, III class, on Rs. 30, for the Gyaing revenue station.

West Salween Division.—One forest ranger, II class, instead of one of the I class transferred to the Pegu circle; two additional forest guards on Rs. 14 for the care of the lately sanctioned Upper Salween reserves.

Ataran Division.—One additional forester, IV class, on Rs. 25, and two foresters, VI class, on Rs. 15 to meet increased work caused by revenue rules and protection of reserves.

South Tenasserim Division.—One clerk and accountant, II class, for submission of accounts direct to the Comptroller-General; one forester, I class, instead of one forester, III class; one additional forester, IV class, and one forest guard, I class, in lieu of one of II class, for Tavoy forests; also one forest ranger, IV class, one forester, V class, and one forest guard, I class, transferred from the Mergui plantation temporary establishment. The designation of Officer in charge of Kado Subdivision was sanctioned in the case of the head clerk, Kado revenue division, to admit of "teinsas," or timber certificates, being signed by that subordinate in the absence of the Divisional Officer, thereby leaving that officer more at liberty to undertake district work. Consequent on these changes and additions in the permanent subordinate establishment, involving an increase of Rs. 345-12-0 per mensem, the total amount sanctioned for this circle now stands at Rs. 3,057-12-0.

Temporary establishment.

10. Sanction was obtained during the year for the entertainment of a temporary establishment at a cost of Rs. 640 per mensem. The increase of Rs. 171 per mensem as compared with the sanctioned amount of the previous year was required to meet the cost of the new elephant establishment in the West Salween and Ataran divisions, of one peon for watching dynamite for blasting purposes, and of an additional forest ranger and boat crew for the protection of timber on the Salween river, less the cost of one Burman writer for Conservator and two forest apprentices no longer likely to be needed or entertained. The actual amount which it was found necessary to expend was however Rs. 560 per mensem, consequent on no blasting establishment being ultimately required.

Forest apprentices.

11. As recorded in the previous year's report, suitable candidates for forest apprenticeships are very difficult to obtain, particularly among the Karens, who form the sole population of most of the forest districts in this quarter of Burma. The chief difficulty lies in the acquisition of English to the extent required for a profitable course of study at the Forest School, Dehra Dun, and to this must be attributed the inability to send another apprentice to the school during the year under review. From the reports from the forest school it appears that Shwe Ka, the apprentice who was deputed in 1882, is making fair progress, although he failed to qualify for a ranger's certificate.

Changes among forest-rangers.

12. Forest-ranger Maung Nyogale, of the Ataran Division, was dismissed from his appointment for having an interest in certain contracts for the extraction of timber and for entering into pecuniary transactions with contractors. The vacancy thus caused has been filled by the appointment of Maung Helè, a young Christian Karen of some educational attainments, who has worked well. Maung Pyu, also a Karen, was promoted from the grade of forester, 4th grade, to forest-ranger, 5th grade, to fill the vacancy caused by the death of Forest-ranger Shwe Aung on the 7th July 1883.

2.—*General Protection and breaches of the Forest Law.*

General remarks.

13. The year under review has been remarkable for the numerous serious cases which have come to light of actual breaches of the forest rules in the forests, indicating on the one hand the greater eagerness of parties working the forests to benefit by the high rates commanded by teak timber and on the other the general efficiency of the subordinate protective establishment. In respect to offences connected with timber in transit on the Salween river and at Kado, although the number of cases detected and dealt with by the Deputy Conservator in charge Salween Division exhibited a slight decrease compared with the figures of the previous year, yet the cases detected embrace some very serious offences and the discovery of a regular system on the part of certain villagers on the Salween of stealing drift timber and passing it at night into the hands of certain receivers in Moulmein who appear to have constant dealings with some of the smaller saw-mills. Under the circumstances it was found absolutely necessary not only to retain the additional forest-ranger and guard-boat (sanctioned on the extra establishment) at and near Moulmein but likewise to engage two extra boats for three months to assist in maintaining a strict watch, both day and night, in the vicinity of certain timber-yards and saw-pits. Ultimately it was found necessary to dispense with these boats as too large and unwieldly and employ small canoes for patrolling and watching purposes as well as spies to furnish information. The adoption of these very necessary measures in October led to the capture in small batches of altogether 109 logs of valuable timber and the prosecution of several individuals. The expenditure incurred was fully met by the value of the property recovered and restored to the lawful owners, the logs being at the lowest estimation valued at Rs. 100 each, the timber thieves apparently confining their operations to timber of first class quality and size.

Breaches of forest rules within State reserves.

14. There were in all five cases of breaches of forest rules committed within State reserves. The most serious of these was the girdling of 89 teak trees in the Megwa State reserve, Ataran district, by the employés of the Bombay Burma Trading Corporation, the leaseholders of a part of the Megwa forest known as Tract No. 50. The trees measured between 6 and 6½ feet in girth at 6 feet from the ground, and, as explained by the leaseholders, were girdled owing to a misapprehension on the part of their employés as to the watershed comprising the eastern boundary of Tract No. 50. Inquiries however showed culpable carelessness on the part of the leaseholders and their head employé and necessitated a reference to the local Government. The case was pending at the close of the year. Towards the close of the year also the Ataran forest-ranger obtained additional evidence regarding the case of illicit girdling in the Gôngyi State reserve, noted in paragraph 16 of the previous year's report, and discovered some more girdled trees which the evidence to hand shows to have been killed by petty contractor Watho and his Karens: this case was only definitely taken up after the close of the year and is still pending. In this same reserve a case of felling two teak trees 2½ feet in girth was also reported by the forest-ranger and as the Karens concerned were engaged in extracting timber, the offence was compounded for the sum of Rs. 50. One case of unauthorized grazing of cattle occurred within the South Myawadi reserve. The individual concerned, who is a native of India, was fined Rs. 10 in the Myoôk's Court. In the West Mèpalè reserve a wealthy Karen (working timber in foreign territory) persisted, in disregard of the warnings of the local forest guard, in grazing elephants and collecting bark for ropes. He was fined Rs. 180 in the Myoôk's Court. Two cases of breaches of forest rules within State reserves occurred also in the West Salween Division, namely, one of felling and damaging teak trees in the (proposed) Dagwin reserve, and the other of clearing grass land for temporary cultivation within the Bilakatkyi State reserve without permission. In the former Rs. 145 was ordered by the Court to be paid as compensation to the Forest Department, while in the other case prosecution was abandoned by the Divisional Officer, who rightly judged that it being a first offence and no damage having been done, the parties

had been sufficiently punished by being summoned to the Assistant Commissioner's Court at Kyaikto, a considerable distance from the forests. A case was also reported of three Karens cutting yas within the Mintha State reserve, South Tenasserim Division, but as final demarcation had not then taken place it was deemed sufficient to dismiss them with a caution.

Breaches of forest rules in leased forests.

15. In December the employés of the Bombay Burma Trading Corporation, leaseholders of the Kyunchaung leased forest known as Tract No. 52, were found to have girdled 21 teak trees under 7½ feet in girth, the standard size stipulated in the lease, and 41 large trees outside the limits of Tract No. 50: these trees were a portion of a total of 148 trees girdled by these parties. The undersized trees comprised three trees from 1 to 1½ foot below the standard size and 18 trees from 1 inch to 4 inches. The case was pending at the close of the year, it having been reported to the local Government as due to want of proper supervision on the part of the leaseholders and neglect of the most ordinary precautions. In the Pandaw leased forest, notwithstanding the previous warning in January 1879, the leaseholders' employés were found to have again committed a breach of the conditions of their lease in the girdling and felling of 33 teak trees below 7½ feet in girth measured at 6 feet from the ground. The case on being reported to the local Government resulted in the cancellation of the lease with permission however to extract all dead and seasoned timber obtained from lawfully girdled trees during a period of two years from the 1st April 1884, the date on which cancellation came into effect, in accordance with the orders contained in Officiating Secretary to the Chief Commissioner's letter No. 771-13D., dated the 27th February 1884.

Breaches of forest rules in unreserved forests and cases prosecuted in District Courts.

16. Of breaches of forest rules in unreserved forests, 13 cases were reported in one of which the offender, who had felled a thingan tree on a small feeder of the Mèkanè stream (East Salween Division) could not be discovered. One case relating to the unauthorized removal of five teak logs from the Upper Salween forest near the Dagwin stockade was prosecuted in the Assistant Commissioner's Court, Papun, and resulted in the two defendants, a timber trader and the police sergeant, being fined respectively Rs. 100 and Rs. 200. Another case of felling three young trees near Papun was dismissed for want of sufficient evidence. In the South Tenasserim division five cases were instituted in the Tavoy District Court and resulted in five persons being convicted and fined for the unauthorized felling and appropriation of timber. In the Mergui District Court there were four similar cases in which 14 persons were implicated, of whom 11 were convicted and 3 acquitted. One case of felling a green teak tree, I class, in the Gôngyi forest, Ataran district, was compounded for the sum of Rs. 50, the Karens having felled the tree in order to remove a dead teak tree which had fallen on it.

Cases investigated and tried by the Deputy Conservator of Forests, Salween Division.

17. In the Court of the Deputy Conservator of Forests, as Magistrate of the 3rd class, 40 cases were instituted, most of which related to timber in transit on the Salween and at Kado; 36 of the cases in which 50 persons were concerned were tried by the Deputy Conservator, the remaining four cases, in which 8 persons were implicated, being forwarded to the higher Courts for higher punishment. The cases tried by the Deputy Conservator, Salween Division, may be thus summarized:—

17 cases of breach of Rule 17, Forest Rules.
1 case of breach of Rule 8, Forest Rules.
8 cases of breach of Rule 12, Forest Rules.
4 cases of breach of Rule 22, Forest Rules.
2 cases of breach of Rule 23, Forest Rules.
1 case of breach of Rule 5, Forest Rules.
1 case of breach of Rule 35, Forest Rules.
5 cases of breach of Rule 36, Forest Rules.
1 contempt of Court.
1 breach of section 403, Indian Penal Code.

The total amount of fines realized was Rs. 1,070; and the number of logs detained and confiscated amounted to 73 and 45 respectively. Two cases referred to the Deputy Commissioner of Amherst district resulted in one person in one case being

fined Rs. 100 and four persons in the other being discharged. In one case forwarded to the Court of the Assistant Commissioner, Hlaingbwè subdivision, two persons were sentenced to two years' imprisonment, and in the remaining case, transferred to the Court of the Assistant Commissioner, Moulmein Town District, one of the accused was sentenced to six months' imprisonment and the other was discharged.

3.—*Forest Fires.*

Increase in area attempted to be protected.

18. During the year fire-protective measures were undertaken over a considerably larger area, protection being extended to a portion of the Natchaung reserve, Ataran division, and to the entire Ônkangyi and Bilakatkyi reserves in the West Salween division, the former of which had been hitherto only protected in the southern part. The area attempted was 78,452 acres as against 61,914 acres during the previous year, thereby involving an increase in the area attempted of 16,538 acres, equivalent to an increase of 27 per cent.

Failures in fire-protection.

19. Owing to the long period of drought, which was a special feature of the dry season of 1883-84, the early showers not commencing in many districts till the middle of April, numerous fires, mostly accidental, have to be recorded as having broken out in the greater number of the fire-protected reserves. The energy and vigilance of the protective establishment were in consequence taxed to the utmost; and it is therefore satisfactory to note that the results, notwithstanding the enhanced difficulties besetting the work, compare favourably with those of the previous year. In all twenty-four fires broke out, resulting in failures over a total area of 14,432 acres, or 18·4 per cent. of the area attempted, a slight decrease as compared with the previous year's results.

Area successfully protected.

20. The total area successfully protected was 64,020 acres, or about 81·6 per cent. of the area attempted, which is a very slight improvement over and above the results of the previous year but nevertheless satisfactory in the face of the long drought which was experienced. Entire success as heretofore attended the protective measures in the Mèwaing and Mènanwè reserves of the West Salween division at the small cost of Rs. 16. They may likewise be pronounced successful in the Ônkangyi reserve, fires only spreading over 383 acres notwithstanding the peculiar difficulties which beset fire-protection in the Dôndami reserves from the presence of large stretches of kaing (elephant) grass lying to the east and south. The same may be noted of the contiguous reserve, Bilakatkyi, one-half of which was for the first time successfully protected free of expense by the villagers, who receive yearly permission to cultivate in the kaing grass areas within the reserve. A fair measure of success likewise attended the work in the Sinzwè reserve, in which two fires occurred both caused by high winds carrying sparks over the south firetrace, 40 feet broad: both were promptly suppressed by the patrol establishment after spreading over 606 acres, including four yas of 1881 and 20 acres of yas of 1877-78. The work in the Ataran division was also attended with satisfactory results in the case of the area attempted in the Natchaung reserve, no fires entering the same, and in the Kyunchaung reserve likewise, in which, although four fires occurred, only 61 acres were burnt. The first of these fires it appears was caused by some one of a party which accompanied the District Superintendent of Police smoking cheroots when passing through the reserve. Fortunately most of the trees and bamboos had not fully defoliated, and hence the fire did no damage. The other fires were caused in one instance by travellers passing through the reserve, and in the other instance by sparks being carried over the firetraces on the occasion of burning the new taungya plantation-sites. A small teak plantation which had been inadvertently commenced in a corner of the Pakabo reserve was successfully protected.

Special measures for the protection of West Mèpalè reserve.

21. For the protection of the largest reserve, the West Mèpalè reserve of 40 square miles in East Salween division, special measures were for the first time adopted, involving the preparation and maintenance of external firetraces 30¾ miles in length and interior firelines aggregating 23 miles, or a total of

53¾ miles. Two fires crossed the south boundary during the prevalence of high winds on the 17th and 18th March and were only suppressed after spreading over 5 square miles. A third fire entered from the west and a fourth from the north and spread over respectively 4 and 2 square miles on the 3rd and 14th April: these latter were due to the patrol establishment having fallen below the full complement, it being found extremely difficult to engage new hands as required owing to sickness and the general feeling of dread inspired by two very savage wild elephants which have been roaming up and down the Mèpalè valley some time. The results of the work were however by no means unsatisfactory, 29 square miles of the reserve being successfully protected, a great improvement on the previous year, when the fires spread through every part, leaving only patches here and there unburnt. The expenditure incurred amounted in all to Rs. 1,112. When some permanent fire-traces have been made, there will be less difficulty experienced in the protection of this reserve, especially on the east side where the Mèpalè range of hills constitutes a very serious source of danger instead of a natural fire-protecting line as was at first erroneously assumed. The approaches to the crest are found to be steep and difficult to firetrace, and the belts of evergreen forests sufficiently dense and moist to resist fire very far apart.

Failure in the Kahilu reserve, West Salween division.

22. The main failure in the season was in the Kahilu reserve, the protection of a portion of which, namely, 1,280 acres, has hitherto been deemed exceedingly simple by reason of the large area covered with evergreen forest. The opinion entertained regarding the fire-resisting properties of evergreen forests must be considerably modified by reason of the experience of the last season, fire having unexpectedly spread through a considerable area of this forest, a striking proof of the great dryness of the season. To this occurrence and the formation chiefly of a high road through a portion of the reserve have to be attributed the two fires which spread over the whole of the protected area with the exception of 18 acres of the plantation. Inquiries leave no doubt that some persons unknown set fire to the debris at the side of the new road and so occasioned the largest fire. The precise damage done to the 1879, 1880, and 1882 plantation areas has not yet been ascertained.

4.—Grazing and Fencing.

Grazing and fencing.

23. Nothing has to be recorded under the head of grazing, the sanctioned reserves being for the most part in sparsely populated localities and consequently free from grazing rights. The necessity for fencing in any of the reserves has not yet arisen, but much inconvenience, as well as occasional injury to plantations, is occasioned by the time-honoured practice of allowing large herds of buffaloes to roam about in the dry season several miles around the villages, the owners only occasionally taking the trouble to look them up and count them. At times some of the animals become too wild and savage to handle and, being left to themselves for months, are frequently found within the reserves committing considerable damage. In such circumstances recourse is at times had to a rough fence around the younger plantations, but it is very difficult to keep such fences in an efficient condition and serviceable against the entrance of large resolute animals. To institute proceedings against the owners is almost impossible, the owners not being known and identification of the animals likewise being very difficult. The forest guards also hesitate to adopt strong measures for fear of reprisals from the owners. Sooner or later the question of systematically dealing with and checking this practice of allowing cattle to roam about uncared for will have to be considered not only with reference to Forest Department interests but also those of the large taungya-cutting population, who are loud in their complaints of injuries sustained to their crops by such a practice.

5.—Natural Reproduction.

No measures undertaken to promote natural reproduction.

24. No work was undertaken during the year towards stimulating natural reproduction. Such operations as burning dead bamboo patches, girdling worthless and dominant trees, and the judicious dibbling in of seed, requires close

and efficient supervision at the time, to be followed subsequently by carefully conducted periodical visits with the object of weeding and clearing wherever the same may be necessary. The time of the Divisional Officers was too much occupied to admit of their undertaking such work, and without proper European supervision experiments of this nature generally fail and entail much unnecessary expenditure.

6.—*Artificial Reproduction.*

Teak taungya-cultivation in excess of that of the previous year and results more satisfactory.

25. During the year 158 acres were cultivated with teak with the following results:—

	Well stocked. Acres.	Indifferently stocked. Acres.
West Salween division	86	...
Ataran division	44	...
East Salween division	...	28
Total ...	130	28

The countings made in December on these two respective areas gave an average of 361 to 822 plants per acre in the case of the former and 80 to 159 per acre in the latter. The total area cultivated with teak, namely, 158 acres, represents an increase of 88 per cent. on the area of the previous year, while the area well stocked is thrice as large as the area successfully cultivated during the previous year.

Conditions contributing to the satisfactory results of the year.

26. The satisfactory results obtained in the West Salween and Ataran divisions were undoubtedly due to—

(i) great care in the selection of seed and the rule enforcing collection of same to a certain extent on the part of the cultivators;
(ii) sowing the seed before the commencement of the rains;
(iii) the lengthened experience of most of the cultivators;
(iv) filling up blanks with transplants.

The most successful of the cultivators were the Karens residing in the Mèwaing and Minnannwè reserves, West Salween division, their plantations having the appearance in February of the most carefully prepared regular plantations with a plant from 4 to 15 inches high at every peg: these results and the success which has attended this cultivation throughout the West Salween division are doubtless due in the first instance to the tact and firmness of the Divisional Officer in dealing with the Karens and careful supervision and judicious handling of his Karen subordinates, who are not as a rule as quick of apprehension and as intelligent and well educated as one would desire. The results obtained in the East Salween division were chiefly due to indifferent quality of the seed and the sowings being undertaken in most of the taungyas after the commencement of the rains. The inexperience and general independence of the Thaungyin Karens and unsatisfactory burning of the clearings owing to the early rains also account in a measure for the indifferent results obtained in this division.

Total area cultivated with teak up to date.

27. With the additional area of the year under review, the total area planted with teak is shown in Form 50 appended to this report as follows:—

			Acres.
Regular teak plantations dating from 1856 and not intended to be increased			23
Taungya teak plantations—			
Well stocked	908	...	1,547
Indifferently stocked	639		
Total		...	1,570

Expenditure.

28. The total expenditure incurred during the year on the area cultivated, inclusive of cost of teak seed and taxes of cultivators, amounted to Rs. 1,451. The actual total expenditure, inclusive of charges pertaining to former years' plantations, weeding, &c., was Rs. 2,031.

7.—*Cutting of Creepers, Weeding, &c.*

Creeper-cutting and other work.

29. The work of cutting creepers and freeing the crowns of teak saplings was carried on simultaneously over 446 acres of the plantations of the rains of 1878 and 1879 in the Sinzwè reserve at a cost of Rs. 383. The Kamu cooly establishment under Karen gaung Thaw Tu was employed in this work, which is necessitated by the extremely rapid growth of the evergreen tabendaing bamboos which are very abundant in this reserve. In other reserves the above work was also carried on in the older plantations by the forest subordinates in charge. In the natural forest creepers in sight of the pathways were cut as usual by forest subordinates, but no report is to hand of the total number thus cut.

Weeding.

30. Previous years' plantations, aggregating 252 acres, were weeded at a total cost of Rs. 469-13-0, equivalent to Rs. 1-13-9 per acre. In most of the plantations of 1882 two weedings were undertaken, and this rule it is necessary strictly to enforce as it is the only means of insuring to the young plants a good start over the rank growth of bamboos, &c., surrounding them.

8.—*Experiments with Exotic and other Trees.*

Cultivation of thitka (*Pentace burmanica*).

31. The experimental cultivation of thitka was continued in the Kahilu reserve, West Salween division, with very successful results. Upon two yas, aggregating about 6 acres, sown with thitka seed, the countings gave an average of 730 plants to the acre. The expenditure amounted to Rs. 64, including cost of seed and taxes.

Cultivation of kyibin (*Barringtonia racemosa*).

32. With the object of suppressing a considerable stretch of kaing grass, always a source of danger from fire, in the Sinzwè reserve, West Salween division, 25 baskets of kyibin seed (*Barringtonia racemosa*) were sown at 13,145 pegs in lines 10 feet apart in kaing grass between the Shôk and Mikya streams at a total cost of Rs. 165-8-0. The seed germinated freely, and although the young plants were for the most part cut back to the roots by the fire which broke into the reserve, there is reason to believe the experiments will prove successful, the roots exhibiting no signs of injury. The fact of the seed being collected near the Salween river, thereby entailing boat-hire charges, tended unnecessarily to swell the cost of the experiment.

Cultivation of para India-rubber (*Hevea braziliensis*) at Mergui.

33. The 55 hevea trees in the Mergui plantation, including one raised from a cutting, are reported as growing well. Eight of them flowered, but only one bore seed to the extent of two seeds. The largest are reported as measuring—

	Girth. In.	Height. Ft.
No. 1	15½	36
„ 2	11½	24½

Four out of the seven heveas in the office compound have also flowered, but no seed has been found. The largest measures 23½ inches in girth and 40 feet in height.

Cultivation of *Castilloa elastica* at Mergui.

34. From Ceylon twelve cuttings were received, but only four survived, which, with the two original trees, are doing well. If the cuttings had been received in the rainy season, the failures would have been doubtless much fewer. The largest of the *castilloa* trees is now 13 inches in girth and 14 feet in height.

Cultivation of ceara (*Manihot glaziovii*) at Mergui.

35. The larger ceara trees have continued to succumb to the attacks of white-ants referred to at some length in paragraph 34 of the previous year's report, but with plants raised at the commencement of the year from seed and cuttings there are in all 970 plants and young trees in the plantation. The two largest measure respectively—

	Girth. Ft. in.	Height. Ft. in.
No. 1	2 0	27 8
„	1 10	26 0

In accordance with the orders of the local Government the propagation of ceara has been discontinued, and some young plants have been despatched for experiment to the Pegu circle, where a more suitable locality can doubtless be found, the rainfall being not so heavy in that quarter.

Cultivation of other species in the Mergui plantation.

36. Of the four young *Ficus macrophylla* trees only two are in good condition, the largest of which has a girth of 4½ inches and a height of 10 feet 4 inches. Thirteen cuttings were put down near the small stream in the centre of the plantation and are doing well. Experiments were undertaken towards the middle of the rains with the kyetpaung (*Parameria glandulifera*), and 228 seedlings were collected for that purpose from the forests, but of these many died, leaving 161 on hand at the close of the year. The seedlings appear to be very delicate; they were kept under shade in the dry months and watered regularly, but evidently the long drought proved injurious and stronger plants must be collected in future earlier in the rains. Of the malaingbin (*Broussonetia papyrifera*) there were 189 on hand at the Mergui plantation at the close of the year, two only having died during the year. The number of akyaw (*Aquilaria agallocha*) was reduced from 22 to 15, consequent on injuries received from some elephants and buffaloes breaking into the plantation as reported in the previous year's report. The number of *Pithecolobium saman*, or rain trees, on hand has dwindled down to 80, the climate at Mergui being evidently too moist for this species. To the same cause and the attacks of the borer may be attributed a reduction in the number of mahogany trees, the number having fallen from 33 to 13. On the other hand, the *Musa textilis*, or manilla hemp plants, are doing well, and by planting out 37 young shoots and 34 plants removed from Tavoy, the stock on hand has been increased from 9 to 80. The two *vanilla* plants also continued to do well during the year.

Expenditure at Mergui plantation.

37. The total expenditure charged against the Mergui plantation during the year amounted to Rs. 1,549, which includes cost of one forest ranger, one forester, and one forest guard at Mergui, who from the 1st March 1884 have been incorporated in the permanent establishment and will no longer be charged against plantation work.

Experimental cultivation of mahogany near Amherst and at Moulmein.

38. The mahogany experiment near Amherst continues doubtful of success. The number of plants on hand at the commencement of the year, 63, has been again reduced by the attacks of the borer, and when the plants were inspected by the Divisional Officer in March there were found to be only 57 plants, of which seven had suffered so badly from the borer as to have but little prospect of outliving the dry season. The average height of the 50 young trees is 6 feet 7 inches, the largest being 13 feet, and only one other as much as 10 feet. Three of them have a girth of 6 inches, but the majority are only 2 to 3 inches in girth. In the compound of the Forest Office, Moulmein, nine more mahogany plants have been set out, thereby making 14 in all: these nine plants have been watered daily during the dry weather and have continued in a healthy condition with fresh-looking foliage. The five older plants have had only occasional waterings. The sizes of the five oldest trees vary between 8½ and 14 feet in height and 5 to 10 inches in girth.

9.—*Communications and Buildings.*

Construction of guard-houses, &c.

39. Arrangements were made for the construction of a guard-house at Gyaing revenue station, East Salween division, but the work was not actually commenced till near the close of the year. A timber slip was made in the Battery Point depôt to facilitate the hauling up of the timber at all hours of the tide. The expenditure, exclusive of materials supplied from the depôt, amounted to Rs. 1,879-1-0. In the West Salween division Rs. 41 were expended on earth-oiling the Papun forest office building and Rs. 10 on the rethatching of the outhouses to the Kyunchaung Wa rest-house. In the South Tenasserim division a small bamboo house was constructed at a cost of Rs. 50 at the Nauklè depôt at Mergui. In the Kado division a boat was purchased for Rs. 320 for the use of the extra forest

ranger, and boat establishment sanctioned at a cost of Rs. 143 per mensem for duty on the Salween river.

Steam-launch *Ataran.*

40. In June the twin screw-launch *Ataran*, constructed for this forest circle at the Kidderpore dockyard, arrived from Rangoon *viâ* the Sittang river and the Winpadaw and Kyauksarit creeks, the latter connecting the Bilin with the Dôndami river. She is 49 feet in length, 9 feet in breadth, has a draught when in actual use of 3 to 3½ feet, and is propelled by two engines collectively of 8 nominal horse-power. Her speed at the measured mile on the Hughli was 9·14 miles per hour. Her original cost in Calcutta was Rs. 8,645-5-11, to which have to be added the following amounts:—

	Rs.	A.	P.
Freight from Calcutta to Rangoon	700	0	0
Cost of teak roofing, painting, &c., at Rangoon ...	915	0	0
Stores, oil, &c., supplied at Rangoon	177	8	1
Coals at Rangoon	97	8	0
Minor alterations	150	6	0
Total ...	2,040	6	1

thereby making a total cost of Rs. 10,685-12-0. Additional stores had to be purchased at Moulmein at a cost of Rs. 156-6-0, which with Rs. 2,454-7-5 expended as working charges on wages of crew, coals, oil, and extras makes a subsequent total expenditure during the year of Rs. 2,610-13-5. Since her arrival she has done excellent service, having performed sixty trips, representing a total mileage to and fro of 1,898 miles, or 341·55 hours, under steam, and earning a total of Rs. 448-10-8 as savings in travelling allowance. The great saving however is in the time of officers, who now perform in a few hours journeys which formerly occupied the greater part of two or three days in small boats, and involved much that was calculated to prostrate and impair one's health. Another advantage gained is that ponies, for marching purposes, can be conveyed a long way up the rivers in boats in tow of the launch, whereas this was formerly impossible owing to the oscillation of the boats caused by poling against a strong current.

CHAPTER IV.

YIELD AND WORKING.

1.—Departmental Operations.

General remarks.

41. The operations of the Department have comprised girdling work, extraction of timber from the forests, collection of drift timber, disposal of timber at depôts, and its conversion and shipment. The girdling work was not taken in hand till the close of the year owing to instructions received from the local Government to reduce expenditure as much as possible under certain heads; hence the information to hand regarding the girdling work is not complete. For similar reasons, except in the case of the South Tenasserim division, no revision of the work could be undertaken.

Causes contributing to a decrease in the outturn of teak.

42. The arrivals of timber at depôt from the forests exhibit a considerable decrease compared with those of the previous year. The consequences financially have been so serious that it will not be out of place to enter into the following detailed explanation of the occurrence. From the Salween and West Salween divisions the arrivals of teak timber were 476 tons in excess of those of 1882-83, but on the other hand the decrease in the arrivals from the East Salween and Ataran divisions amounted to, East Salween 2,350 tons, Ataran 876 tons, or a total of 3,226 tons, which, less the increase noted above, give a total decrease of 2,750 tons during the year under review. The decrease in the Ataran division calls for no particular remark, no girdling of timber being possible in the resumed leased forests for the reasons noted in paragraph 6; but the case of the East Salween division is different, the Department being compelled to depend upon these forests for regular supplies of seasoned timber, although girdling only to a limited extent can be undertaken in them. The teak localities are so extensive, being estimated at 250 square miles in extent, that the Department is justified in looking for

a considerable outturn yearly in the shape of dead and seasoned timber from naturally dead and fallen trees and the top ends and refuse of former workings, when operations were almost wholly limited to timber of I class quality: this source of supply and timber killed in taungya clearings have served to swell the yearly outturn very considerably over and above the yield of the girdled trees, as shown by the following figures:—

		Trees girdled.	Logs.	Timber extracted. Tons.
Twenty-two years, from 1856-57 to	1877-78 ...	13,748	...	128,069
	1878 79 ...	934	5,035	5,245
	1879 80 ...	316	4,989	4,275
	1880-81 ...	1,065	4,142	2,810
	1881-82 ...	1,054	9,626	8,259
	1882-83 ...	1,510	6,454	6,817
	1883-84 ...	...	5,664	4,560

In considering the causes contributing to the decrease of 2,750 tons in the tonnage of the year under review, it has to be remembered that the arrivals at depôt in one year represent the actual working of the previous year. Thus the arrivals in 1883-84 comprise the timber felled and dragged in the rains of 1882, and only launched in the Thaungyin river in September 1882, when the pushing of the timber commences. This latter operation, in which about 30 elephants are engaged, generally occupies five to six months, but occasionally a longer period, when the quantity of foreign Thaungyin timber also in course of being pushed is very large, or when an epidemic appears among the elephants. Such an epidemic broke out at the close of 1882 and only abated in February and March 1883. The result was great delay in the pushing, and towards its close doubtless no little neglect and want of care, as evidenced by the fact that out of 6,500 logs reported as launched only 5,664 came to depôt by the 31st March 1884, although subsequent to that date 444 logs in addition have been accounted for, leaving almost an equal number to arrive with the timber of the rains of 1883. The neaping of a portion of the timber, due more or less to the above causes, will therefore in part explain the decrease in the arrivals, but the fact remains that the tonnage of the timber compared with that of the previous year likewise exhibits a large decrease. To maintain the tonnage to its ordinary figure, there can be no doubt that the contractors must have a certain number of girdled trees to work out in addition to ordinary dead and fallen timber. Generally two to three years suffice for the seasoning of girdled teak trees, but the timber of very large girdled trees will not float well before four or five years. A considerable proportion of the 934 trees girdled in 1878-79 and the 316 trees girdled the following year comprises trees of very large girth which season very slowly: these trees were not all available for removal in the rains of 1882, and were found, even in the dry season of 1883, to be seasoning so slowly that permission was granted to the contractors to subject them, as well as the girdled trees of 1880-81, to the "kaung" process under which two deep gashes are cut into the tree at the girdle and the same connected by a large hole through the centre to facilitate the withdrawal of the sap. To the slow rate of seasoning in the case of the trees of the later girdling must be therefore attributed the great decrease in the tonnage of the timber of the year under review. At the same time inquiries show that some few of the larger trees must have been sufficiently dry in the rains of 1882 to admit of their removal, and that this would doubtless have been attempted had large and powerful elephants been readily procurable. The great rise in price of timber at Moulmein, and the consequent increase in the outturn of the foreign Thaungyin forests from 27,599 to 39,306 tons in 1883-84, explains the withdrawal of nearly all the best dragging elephants to the Siamese side of the Thaungyin river, it being estimated that 400 to 500 elephants from the British Thaungyin forests are yearly taken across to work in the foreign forests. Thus in summing up it may be noted that the decrease in the arrivals at depôt of Thaungyin timber is attributable to—

(i) paucity of well-seasoned girdled trees;
(ii) difficulty in procuring powerful elephants;
(iii) the neaping in transit of over 1,000 logs consequent on the epidemic among elephants engaged in pushing timber in 1882-83.

1.—Departmental Operations.

Extraction of teak timber from forests by Government agency.

43. During the year 39,851 teak logs, pieces, and crooks, measuring 11,599 tons, were brought to depôt by Government contractors as shown below :—

Divisions.	Logs and pieces.	Tons.
Salween	6,753 ...	1,193·66
East Salween	7,885 ...	4,985·92
West Salween	14,080 ...	3,069·36
Ataran	11,633 ...	2,350·26
Total ...	39,851 ...	11,599·2

The outturn, compared with that of the previous year, exhibits a decrease of 2,750 tons as has been previously stated, but is nearly equal to the outturn in 1881-82, when the rise in the price of teak made it possible to work out at profit large quantities of refuse teak and thereby more than double the outturn of 1880-81. The decrease during the year under review is due almost wholly to the falling-off in the yield of the Thaungyin forests of 2,257 tons and of the Ataran forests of 876 tons, the causes of which have been discussed at length in paragraph 42.

Cost of extraction of teak timber.

44. The average cost of extraction of 5,664 logs and pieces of Thaungyin timber was Rs. 14-9-8 per log and of 187 logs Mèthalauk timber from the West Salween division Rs. 16-11-4 per log. Upon the timber from the remainder of the forests—Lower Salween, Kolun, Hlaingbwé, Dôndami, Yunzalin, and Ataran—comprising chiefly pieces and crooks of inferior quality, the average cost of extraction amounted to only Rs. 2-5-9 per piece.

Timber of other kinds extracted from the forests by Government agency.

45. Of other kinds of timber 1,739 tons were brought to Battery Point depôt, Moulmein, during the year by Government contractors and 887 tons to depôt at Tavoy, making a total of 2,626 tons, full details of which will be found in Statement No. 60., Compared with the figures of the previous year, the outturn exhibits a falling-off of tons 1,291: this is due chiefly to a failure on the part of the Government contractors to fulfil their engagements in pyinma and thitka consequent on the great reduction which has taken place lately in the number of dragging elephants throughout the forests and the large number of these animals being employed also in the extraction of thitya and other timber of the unreserved kinds under trade licenses. It is estimated that about 400 elephants have been removed during the last two years chiefly to the Upper Burma forests, the Bombay Burma Trading Corporation, Limited, alone having taken 140 dragging elephants since April 1883 for the working of the Chindwin forests on the Irrawaddy. A favourable feature however in the outturn of the year was an increase in the quantity of padauk extracted, amounting to 299 tons over and above the quantity delivered in the previous year, the higher rates paid for working tending to stimulate the contractors.

Cost of extraction of timber of other kinds.

46. The cost of extraction of the lighter kinds of wood varied from Rs. 7-6-5 to Rs. 14-9-1 per log and of the heavy woods from Rs. 15-13-2 to Rs. 17 per log, equivalent to Rs. 9-4-0 and Rs. 21-12-0 per ton respectively. The cost of 150 broad gauge pyingado sleepers brought to depôt at Moulmein was Rs. 2-10-0 per sleeper and of the 4,038 broad and 11,166 narrow gauge pyingado sleepers at Tavoy it was Rs. 2-14-0 and Rs. 1-4-9$\frac{6}{10}$ per sleeper respectively. At Tavoy also 887 pyingado scantlings, measuring 401 cubic feet, were also received at a cost of Rs. 524-3-7.

Conversion of timber by the Department.

47. During the year 483 teak logs, measuring 534·4 tons, including 41 logs foreign timber purchased in the market, were converted at Moulmein, yielding 455 squares of 16,603 cubic feet, planks and scantling of 3,708 cubic feet, and 25,500 shingles measuring 424 cubic feet. At Tavoy 15 thitka logs, measuring 16·43 tons, were converted into 42 pieces and shipped to Moulmein to

Messrs. Foucar and Co., and of padauk seven planks were converted at Moulmein for the Gun Carriage Factory, Futtehgarh.

48. The Department shipped 213 I class teak squares and 42 thitka pieces and seven padauk planks noted above, as well as the following timber received from Government contractors :—

Shipment of timber by the Department.

		Tons.	Ft.
To the Gun Carriage Factories, Bombay and Madras ...	90 teak logs ...	101	18
	2 teak spars ...	4	44
	310 padauk logs ...	237	35
	40 ingyin or sal ...	27	21

			No.
To Calcutta ...	Pyingado sleepers—		
	Broad gauge	... ...	3,508
	Narrow gauge	... ...	10,331

49. During the year 8,025 logs, or 6,006 tons, of drift timber were salved in the Salween division and eight teak logs and 17 logs of other kinds in the South Tenasserim Division, making a total of 8,050 drift and waif logs brought to depôt, which, with 1,952 logs on hand at the beginning of the year, makes a total of 10,002 logs,—7,448 tons to be accounted for. The collections in the Salween Division comprised 2,863 logs from the seashore and its vicinity and 5,162 logs salved in the river; they exceeded the collections of the previous year to the extent of 1,055 sea-drift and 1,061 river-drift logs, or in all 2,116 logs.

Collection of drift timber.

50. The following were the disposals of drift timber :—

Disposals of drift timber.

		Logs.	Tons.
Made over to claimants ...	Sea-drift... ...	452	3,430
	River-drift ...	3,596	
By sales at depôt	...	3,678	2,236
By sale at seashore	...	101	76
Transferred to Salween division ...	...	418	421
Total of disposals	...	8,240	6,163
Balance on hand on 1st April 1884 ...	...	1,762	1,285

51. The expenditure under this head amounted in all to Rs. 46,042-10-6, the rates paid, both for sea and river drift, continuing the same as those of the previous year, but additional direct expenditure was incurred in the hire of boats for watching purposes.

Expenditure on salving operations.

52. Consequent on instructions to restrict expenditure if possible within certain limits, the work of girdling was postponed to the close of the year, and in the case of trees other than teak it was left to the discretion of Divisional Officers to undertake the work according to circumstances and the establishments available for such duties at the close of the dry season. Of trees of other kinds the following are reported to have been girdled, or a total of 1,940 trees :—

Girdling operations.

Pyinma	1,540
Ingyin	200
Padauk	200

The particulars regarding these trees will be found noted in Appendix D. In addition to the above, 650 teak trees were girdled at the close of the year in block I of the West Salween Division, but no particulars are to hand beyond that of selection having been limited to trees outside the reserves in the Mòtharauk valley. Arrangements were made for continuing girdling in the block V of the East Salween Division, but no report of the result has yet been received, the forest subordinate charged with the execution of the work having it appears died somewhat suddenly.

53. The lateness of the season precluded any revision of the girdling work of the year, except in the case of the 200 pyinma trees girdled in the South Tenasserim Division. The Divisional Officer inspected 106 of the 200 girdled trees in April and found only seven trees slightly under

Revision of girdling work of the year under review and of the previous year.

6 feet in girth. The work appears to have been satisfactorily performed by Forester Maung Su. A revision was undertaken by the East Salween Divisional Officer of the 564 teak trees girdled during the previous year in the Haungdaraw forest. Out of 194 girdled trees examined 39 proved to be below the standard size (6 feet in girth) and 46 were imperfectly girdled. The explanation of the forester was that the trees were for the most part of irregular growth and buttressed below, and that hence it was difficult to measure and kill them. It was however proved that he often left the selection of the trees to the coolies, and a fine of Rs. 56, or Re. 1 per tree, was consequently inflicted, 10 per cent. of the trees being estimated as undersize.

2.—Removal of Produce by Purchasers.

Teak timber removed from forests by leaseholders.

54. During the year 446 logs and 960 pieces and crooks, or 1,200 tons of teak timber, were extracted from the Mittigeik and Mittigeik-Kodugwè leased forests in the Ataran district, and 46 logs and 7,437 pieces, or 2,000 tons, from the Pandaw forest.

Timber of other kinds removed by leaseholders.

55. The leaseholders of the Mittigeik and Mittigeik-Kodugwè forests also extracted 1,141 logs, or 1,252 tons, of thitka, valued at Rs. 30,472, the right to remove all timber other than teak being also granted in the lease, subject to an *ad valorem* duty of 10 per cent. One thingan boat-hull, valued at Rs. 800, was also extracted from these forests.

Sales of timber other than teak in the forests.

56. The only sales effected locally were of 24 pyingado posts measuring 66 cubic feet, 1 pyinma log of 46 cubic feet, and 6 thabyay logs measuring 300 cubic feet in the Salween division.

Timber extracted from the forests under trade licenses.

57. From the forests in the Salween, East and West Salween, and Ataran divisions 2,207 logs, or 2,034 tons, of timber of the reserved kinds were extracted under trade licenses and 19,814 logs, or 12,026 tons, of timber of the unreserved kinds, or a total of 6,348 tons in excess of the tonnage extracted during the previous year, the result doubtless of the great rise in the price of teak. From the forests in the South Tenasserim Division timber of the reserved kinds extracted under trade permits amounted to 21,177 logs, or 12,704 tons: these figures are also in excess of the quantity extracted during the previous year by 18,406, and show conclusively that the present rates of duty are not prohibitory except in the case of some of the reserved kinds in the Tavoy district, the outturn of which it is assumed will increase under lower rates.

Minor forest produce removed from the forests by purchasers.

58. The extraction of minor forest produce upon which duty is leviable has continued to be limited chiefly to wood-oil and charcoal. A few licenses were also issued for the collection of thitsi (black varnish), the produce of the *Melanorrhœa usatissima*. There are no means of ascertaining the quantities collected, as payment is on the licenses issued and not on the quantities collected. The amount realized on wood-oil licenses in the Amherst district was only Rs. 16 and in the Tavoy and Mergui districts Rs. 3,023, while on charcoal licenses and thitsi licenses Rs. 146-8-0 and Rs. 12 only were respectively realized.

Free licenses for timber of reserved kinds.

59. During the year free licenses were issued for the following quantities of timber for the construction of buildings and other works for the common benefit of the public:—

	Logs.
Amherst	675
Tavoy	27
Mergui	42
Total ...	744

This timber comprised—

Pyinma ...	312
Teak ...	87
Thingan	118
Anyin ...	78
Pyingado	96
In ...	83
Thitka ...	1
Kanyin ...	12
Karawe ...	1
Kaswe ...	3
Thitsi ...	3

Minor forest produce the use and sale of which is free.

60. There are no means of ascertaining the quantity of various articles of forest produce removed free of duty from the forests, but very large quantities of bamboo are known to be extracted in addition to timber of various kinds for domestic and agricultural purposes. The attention of the Department has been however drawn to articles which are likely to occupy the attention of traders and exporters such as the bark of ôndaung (*Tetranthera laurifolia*), pyu (*Rhizophora mucronata*), and malaka (*Psidium guyara*), of which the quantities reported as felled in the Tavoy district are given at respectively 2,310 trees, 350 trees, and 77 trees during the past year.

4.—Summary of Produce removed from the Forests.

Total yield during the year.

61. The total outturn of the forests in the Tenasserim circle during the year under review was as follows :—

	Teak.			Timber other than teak.		
	Logs and pieces.	Scantlings.	Tons.	Logs and pieces.	Scantlings.	Tons.
By Government agency	39,851	...	11,599	...	887	8
By leaseholders	8,889	...	...	1,141	...	1,252
By purchasers in forests	...	...	...	9	...	8
Under trade licenses	...	...	...	43,198	...	26,764
Under free licenses	87	...	...	657	...	...
Total ...	48,827	...	11,599	45,005	887	28,032

5.—Import and Export of Forest Produce.

Import trade during the year.

62. Consequent on the great impetus given to the timber trade by the high prices commanded by teak in the Moulmein market, the import of teak during the year from the forests in the Karenni, Gyaingdaung, and Siamese-Shan States has been the largest ever known to have taken place in one year. The high prices ruling served everywhere to stimulate the extraction of timber standing at great distances from the waterways, the Karens and others engaged in the actual working of the forests demanding and receiving for good full size timber dragged to the banks of the main streams as much as from Rs. 50 to Rs. 70 per log on the Mèzalin, Mèza, and Mèkaunggyi streams Rs. 80 per log in the Karenni (proper) forests and from Rs. 20 to Rs. 35 per log for timber of mixed size and quality in the Siamese Thaungyin forests. Another result of high prices has been the extraction of an unprecedented quantity of inferior timber from the Gyaingdaung and Siamese Thaungyin forests. As this feature in the year's imports is a sure indication of the exhaustion of the latter forests, a note reviewing the condition of the several foreign forests and the conclusions to be arrived at has been submitted to the local Government. A copy is appended marked Appendix A. The importation under this head is continuing, and being out of all proportion to the demand for timber of such quality, the importers will in most cases be heavy losers or barely be in a position to cover their expenses. The high prices however ruling in Moulmein

for full size timber of fair quality, from Rs. 115 to Rs. 120 per log in some cases, and on an average from Rs. 80 to Rs. 90 per log, have enabled a large number of the leading importers to net considerable profits.

Foreign teak timber imported by the Salween and reported at Kado.

63. The number of teak logs and pieces imported by the Salween river, and reported at the Kado revenue station, during the year amounted to 161,751, having a tonnage of 169,400 tons, as shown below :—

	Logs and pieces.	Tons.	Total tonnage.
Karenni—			
Full size	76,862	89,629	92,556
Undersize	2,177		
Stem-pieces	4,879	2,927	
Gyaingdaung—			
Full size	14,537	17,171	22,148
Undersize	526		
Stem-pieces	8,295	4,977	
Hmainglôngyi—			
Full size	3,814	5,350	6,038
Undersize	2		
Stem-pieces	980	688	
Thaungyin—			
Full size	27,932	34,058	43,877
Undersize	1,944		
Stem-pieces	16,365	9,819	
Dagwin—			
Full size	3,725	4,660	4,781
Undersize	10		
Stem-pieces	208	121	
Total ...	161,751	169,400	169,400

Increase in importation.

64. The above figures exhibit an increase of 44,933 logs, or 28,796 tons over and above the import figures of the previous year. Compared also with the figures of 1877-78, when the largest quantity was previously imported, the outturn of the year shows an increase of 21,291 logs, or 24,075 tons.

Increase in importation of undersize timber.

65. One unfavourable feature in the outturn as already noted has been the large increase in the number of pieces constituting inferior timber. The quantity reported during the year was 30,722 against 14,604 during the previous year, or an increase of 110 per cent., the result chiefly of the increased importation of such timber from the Siamese Thaungyin and Gyaingdaung forests, the former of which are showing signs of rapid exhaustion of its resources in marketable timber.

Imports compared with those of previous year.

66. The following figures exhibit the percentage of increase and decrease on the outturn of the previous year 1882-83 :—

	Increase. Per cent.	Decrease. Per cent.
Karenni—		
Logs	34	...
Pieces	45	...
Gyaingdaung—		
Logs	120	...
Pieces	180	...
Hmainglôngyi—		
Logs	...	33
Pieces	...	26

	Increase. Per cent.	Decrease. Per cent.
Thaungyin—		
Logs	24	...
Pieces	147	...
Dagwin—		
Logs		47
Pieces		45

In Appendix E will be found a statement showing the importations of foreign teak by the Salween during the past four years, and in Appendix H the names of the principal importers with the quantity imported noted against each.

Importation of foreign timber of other kinds by the Salween.

67. Importation of timber other than teak was limited to 1 padauk, 25 thitkado (*Cedrela toona*), and 47 pyinma logs. Of these 47 were from the Siamese Thaungyin forests, 21 from the Gyaingdaung, and 5 from the Karenni forests.

Transactions in foreign teak timber at Kado.

68. During the year the following were the transactions in foreign teak timber at the Kado revenue station :—

	Logs.	Tons.
Balance on 1st April 1883	11,867	12,452
Arrived during the year	161,751	169,400
Total ...	173,118	181,852
Passed on payment of duty at ½ per cent. *ad valorem*	128,711	142,968
Balance at close of year ...	44,407	38,884

Registration of hammer-marks used in the trade in foreign timber.

69. During the year 137 new hammer-marks were registered at Rs. 100 each, 53 time-expired marks at Rs. 25 each, and 260 old marks not yet lapsed at Rs. 1 each, making a total of 550 hammer-marks registered. Two transfers of marks were also registered at Rs. 10 each.

Total quantity and value of teak timber imported into Moulmein.

70. The total quantity of foreign teak timber imported into Moulmein from the Kado station during the past two years was—

	Logs.	Tons.	Value. Rs.
1883-84	128,711	142,968	80,33,152
1882-83	115,371	138,106	77,30,391
Excess in 1883-84 ...	13,340	4,862	3,02,761

The average value all round continued as during the previous year at Rs. 56 per ton but fell to Rs. 62-8-0 per log consequent on the larger proportion of short logs imported.

Export trade of teak timber.

71. In Appendices J and K attached to this report will be found the sale prices of teak throughout the year in the "home" or Europe market and freight per ton. It will be seen that the prices for I class teak squares varied between £14-10-0 and £16 per ton, while freight per ton was between 45*s*. and 65*s*. The bulk of the cargoes was carried in sailing vessels, only a few steamers being employed at the higher rate of 65*s*. per ton. At the commencement of the year in the Bombay market prices of squares and scantlings stood at Rs. 100 to Rs. 110 per ton, but at its close they fell as low as Rs. 75 to Rs. 85 per ton. In the Calcutta market prices fluctuated between Rs. 90 and Rs. 130 per ton; both these markets appear to have been glutted towards the end of the year, sales being effected with difficulty, and, as a natural result of this state of things, prices of II class and inferior timber at Moulmein have been seriously affected, scantlings from inferior timber falling from Rs. 60 to Rs. 40 per ton. In Appendix I will be found a list of names of the principal exporters of teak during the year.

Exports of teak during the year.

72. The exports of teak during the year amounted to 90,793 tons and 3,996,925 shingles valued at Rs. 91,01,315, as shown below :—

			Rs.
Teak timber	Tons	90,359	89,90,041
Teak shingles	No.	3,996,925	86,851
Teak ventilators...		...	1,573
Teak heads and staves	Tons	80	4,003
Teak railway keys	"	354	18,347
Total ...			91,01,315

Exports of teak from Moulmein during past five years.

73. The value of the exports during the past five years were—

Year.	Rs.
1879-80	60,34,334
1880-81	75,29,950
1881-82	85,21,896
1882-83	1,01,37,354
1883-84	91,01,315

Thus there has been a decrease of 10 lakhs in the value of exports, due almost wholly to smaller shipments to Europe, the natural result of the very heavy shipments of the previous year.

Exports of timber other than teak.

74. The exports of other kinds of timber from the port of Moulmein amounted to—

	Tons.	Value. Rs.
Timber	6,307	3,15,596
Ventilators	...	4,050
Total	...	3,19,646

Those to Bombay and Madras consisted chiefly of Forest Department shipments of padauk and ingyin to the Gun Carriage Department, while to Calcutta they comprised hardwood pyingado sleepers and scantlings cut to sizes for tea boxes.

CHAPTER V.

Financial Results.

General remarks.

75. The year under review opened with fair prospects, the market price continuing good for timber of II class size and quality, which necessarily forms, and will form for some years, a very large proportion of the annual outturn of the Tenasserim teak forests. Towards the latter half of the year prices began to decline and fell in the case of the Thaungyin timber from Rs. 47-13-0 to Rs. 36-12-0 and Rs. 24-9-0 per ton, while a somewhat similar decrease took place in the prices realized on the crooks, short-pieces, and stem-pieces which constitute the bulk of the yield of the Ataran, Dôndami, and Lower Salween forests. As there were no signs of improvement, the Indian markets being greatly overstocked, it became only too evident that, with the short outturn of the Thaungyin forests and of timber of other kinds, the revenue receipts would fall very considerably below the estimates of the year. Special efforts were nevertheless directed towards insuring the arrivals at depôt within the official year of a considerable quantity of Ataran timber reported as neaped too far up the Zami to admit of extraction before the rains. The pressure brought to bear upon the contractors had the desired result, and a larger quantity of this timber, as well as some additional Yunzalin timber, was brought to depôt and helped, with all time-expired drift timber, materially to increase the receipts under I*a*. The arrivals at the revenue stations of timber of other kinds extracted under trade licenses continued to be large, and ultimately resulted in the receipts under II*a* being considerably in excess of the estimates. The total receipts under all heads finally stood at the close of the year at Rs. 6,58,047-7-3, or Rs. 57,394 less than the budget estimate, while the expenditure, consequent on the special efforts made to decrease the same, amounted to Rs. 4,13,871, or Rs. 64,289 below the sum estimated in the budget. As the result of this saving in expenditure, the net revenue, namely, Rs. 2,44,176, as will be seen from the figures noted below, exceeded the estimate of the year

by Rs. 6,886. As has already been explained, the state of the market, as well as the neaping of several hundred tons of Thaungyin timber and short outturn of other woods, contributed materially to these results.

Financial outlook very doubtful.

76. Generally in a given time the surplus stocks in the Indian markets are sure to be consumed and cause prices here to rise. Future prospects are however rendered very doubtful by a new factor having to be considered in all future calculations touching the financial outlook of the Tenasserim forests. Hitherto, with the exception of competition from the Pandaw leased forest, it may be said that the Government forests have encountered but little opposition in the market in respect to sales of undersized teak timber; hence fair prices could be counted upon whenever there happened to be a demand for such timber for local and export purposes. Now however circumstances are changed, the rapid exhaustion of the foreign (Siamese) Thaungyin forests having led to the girdling and extraction of an unprecedented quantity of undersized timber from these forests. Already the arrivals reported of foreign Thaungyin timber at the Kado revenue station up to date (since April 1884) contain 54 per cent. of undersized logs and stem-pieces, and there can be no doubting the fact that the market for such timber will be very considerably influenced. The outlook as regards the satisfactory disposals of Government timber of the above description is unquestionably seriously affected, and it has been deemed necessary to give special prominence to this matter in the report submitted to the local Government on the condition of the several foreign forests with reference to the maintenance of future supplies of timber and its effect upon the local market as far as can be at present foreseen.

Budget allotment for the year.

77. The budget allotment of expenditure for the year under review was Rs. 4,78,160 and the estimate of receipts accepted by Government Rs. 7,15,450, whereby a net revenue was anticipated of Rs. 2,37,290.

Revenue and expenditure.

78. The cash receipts amounted to Rs. 6,58,047-7-3, contributed by the following divisions :—

	Rs.
Salween	1,25,858
East Salween	1,90,230
West Salween	70,175
Ataran	90,797
Kado	1,25,218
South Tenasserim	54,374
Subsequent addition by Comptroller	1,895
Total ...	6,58,047

The expenditure during the year was as follows :—

A.—Conservancy and working	3,27,272
B.—Establishment	86,599
Total ...	4,13,871

This leaves a cash surplus in favour of the year of Rs. 2,44,176, or Rs. 6,886 in excess of the net revenue anticipated in the budget estimate.

Comparison of revenue with figures of budget and the previous year.

79. The cash receipts of the year it will be seen are Rs. 57,403 less than the budget estimate: this difference is accounted for by the revenue under I*a* falling short of the estimates by Rs. 81,177, while that under II, III, IV, and V shows a total of Rs. 23,774 in excess of the same. The difference of Rs. 81,177 between the receipts and estimate of I*a* is made up of short disposals of Thaungyin timber equivalent to Rs. 49,400, of Mètharauk timber estimated at Rs. 2,000, pyingado-ingyin to Gun Carriage Department at Rs. 16,100, and pyinma and thitka timber at Rs. 15,200. The excess under other heads consisted of Rs. 6,700 under II, Rs. 8,250 under III, and Rs. 8,209 under IV, or Rs. 23,774 in all, thereby reducing the deficit in the receipts as compared with the budget to Rs. 57,403. The falling-off in the disposals was the necessary outcome of the arrivals of timber at depôt being smaller than was anticipated. Compared with the figures of the previous year 1882-83, the receipts exhibit a falling-off of Rs. 1,19,518, which is accounted for

by a decrease in the sales to the extent of 3,984 tons of teak logs and 821 tons of teak crooks and short-pieces, the result of the outturn of the forests being so much less than that of the previous year, when the yield of the Thaungyin forests was abnormally high, being 4,071 tons in excess of that of 1880-81 and higher than the yield of the previous years.

Savings in expenditure.

80. Compared with the budget estimate, the expenditure of the year exhibits a saving of Rs. 64,289, thereby more than meeting the reduction in receipts of Rs. 57,403. There was a saving of Rs. 42,444 under A. I, which was of course due to the smaller quantities of timber received at depôts, while there was an excess expenditure under A. III owing to the additional boats engaged for the protection of timber on the Salween (as explained in paragraph 13) as well as to the larger quantity of drift timber collected. Under A. VI and A. VII there were savings respectively of Rs. 4,060 and Rs. 11,862, due in the first case to the purchase of fewer elephants than was anticipated and in the latter to the construction of the Kawkareik forest bungalow and other works being temporarily postponed. A. VIII*a* also exhibits a saving of Rs. 2,561 consequent on no forest settlement work being undertaken in the Ye and Upper Tavoy proposed reserves. This, with savings under A. VIII*d* and other minor heads make up a total saving under A. VIII of Rs. 5,448, the saving under plantations being chiefly due to the omission to charge off certain expenditure within the official year. Under A. IX*a* an excess expenditure of Rs. 273 was occasioned by a refund of Rs. 1,373 to the Bombay Burma Trading Corporation, Limited, on account of an overcharge on thitka timber from Tavoy. Under B. I and B. II there were likewise savings of respectively Rs. 3,736 and Rs. 4,967 owing to the sanctioned increase in office and subordinate forest establishment not coming into force till the close of the year, and owing to the application to Forest Officers of the reduced daily rates of travelling allowance noted in the Civil Travelling Allowance Code.

Outstandings.

81. At the close of the year the outstandings in the contractors and disbursers' ledgers amounted to Rs. 35,279-12-4, of which Rs. 19,559 represented advances covered by timber and Rs. 7,100 by elephant mortgages, &c., of which Rs. 1,700 have since been recovered, the balance representing minor advances on works in progress and in course of early adjustment and amounts at debit of disbursing officers likewise in course of adjustment.

CHAPTER VI.

General Remarks.

Changes in controlling establishment and health of officers, &c.

82. The only change that has to be recorded in the personnel of the controlling establishment is the retirement of Mr. M. J. Slym, Deputy Conservator, 1st grade, from the service on the 16th December 1883, when he attained 60 years of age. Consequent on his retirement the following promotions took place:—

Mr. M. H. Ferrars to Deputy Conservator, 1st grade.
Captain C. T. Bingham to Deputy Conservator, 2nd grade.
Mr. C. W. Palmer to Officiating Deputy Conservator, 3rd grade.
Mr. T. H. Aplin to Deputy Conservator, 4th grade.
Mr. H. B. Ward to Officiating Deputy Conservator, 4th grade.

During the absence of Captain C. T. Bingham on furlough, the East Salween Division continued in charge of Mr. C. W. Palmer, Officiating Deputy Conservator, 3rd grade, until the 10th August 1883, when charge was made over to Mr. J. C. Murray, Officiating Assistant Conservator, 3rd grade, who had remained in charge of the Ataran Division until the 6th August 1883 when relieved by Mr. Slym, Deputy Conservator, 1st grade. Mr. Palmer relieved Mr. T. H. Aplin, Officiating Deputy Conservator, of the charge of the South Tenasserim division at Tavoy on the 25th August 1883, the latter officer then proceeding on privilege leave for three months. On return from privilege leave on the 16th November Mr. Aplin was posted to the charge of the Ataran Division, and finally relieved Mr. M. J. Slym

of the charge of the Salween and Kado Divisions on the 15th December 1883 on the occasion of that officer retiring from the service. Mr. M. H. Ferrars, Deputy Conservator, 1st grade, continued in charge of the forests in the Andamans throughout the year.

Mr. Ward engaged in operations for improving the navigation of the Yunzalin river.

83. Mr. Ward's services were again called into requisition for the superintendence of the work of freeing the bed of the Yunzalin from snags and other obstructions, but the work was suspended in the end of January 1884 on the receipt of orders to incur no further expenditure during the year.

Changes in subordinate forest and office establishment.

84. Forest-ranger Shwe Aung, of the East Salween Division, died after an illness of several weeks on the 7th July 1883, and the vacancy thus occasioned was filled by the promotion of Forester Maung Pyu to the grade of forest-ranger. Consequent on the dismissal of Maung Nyogale, noted in paragraph 12, Maung Helè was appointed forest-ranger, 6th grade, from the 15th August 1883. The forest-rangers have generally given satisfaction throughout the year, notably Forest-ranger Maung Po Tu, West Salween Division, and Maung Pyu, to whom was entrusted the marking and measurement of the Thaungyin timber prior to its being launched in the Thaungyin. There seems to be still some difficulty experienced in obtaining an efficient and trustworthy class of men for the appointment of foresters in the East Salween Division. No changes occurred in office establishment except those mentioned in paragraph 9.

Health of subordinate establishment.

85. With the exception of Forest-ranger Shwe Aung, whose illness proved fatal, the health of the subordinate establishment continued good throughout the year. Smallpox was very rife in the East Salween Division, but only one mild case occurred among the members of the subordinate forest establishment.

Organization of forest beats.

86. The forest ranges and beats underwent but little alteration during the year, being—

I.—West Salween Division.

(*a*) West Salween range—

(1) Upper Salween,
(2) Wamu,
(3) Sinzwè,
(4) Kahilu,
(5) Bilin, and
(6) Dôndami beats.

II.—East Salween Division.

(*b*) East Salween range—

(1) Upper Thaungyin and
(2) Middle Thaungyin beats;
(3) West and East Mèpalè and Kamawkla beats;
(4) Lower Thaungyin,
(5) Hlaingbwè, and
(6) Haungdaraw beats.

III.—Ataran Division.

(*c*) Ataran range—

(1) Dali,
(2) Natchaung and Gôngyi,
(3) Pakabo and Ma-u,
(4) Kyunchaung,
(5) Megwa and Thinganinnaung,
(6) Ye,
(7) Amherst, and
(8) Modun beats.

IV.—South Tenasserim Division.

(*d*) Mergui range—
(1) Upper Tavoy,
(2) Lower Tavoy,
(3) Nabulè,
(4) Taungbyaukmintha,
(5) Tavoy and Sinzeik depôt, and
(6) Mergui and Nauklè depôt beats.

V.—Salween and Kado Divisions.

(*e*) Kyodan and Salween river range.
(*f*) Battery Point and Nanti range—
(1) Moulmein and Balugyun and
(2) Zinmathwè beats.

Elephant establishment.

87. At the commencement of the year there were two depôt and two carriage elephants in this circle. During the year four elephants were purchased in the Tavoy district, namely, two for the Ataran division, 1 for the East Salween, and one for the West Salween Divisions. Very high prices prevailed, but by sending to the Tavoy district these four animals were obtained at a total cost of Rs. 3,512-4-0. No casualties occurred, but the elephant purchased for the West Salween Division went astray from the vicinity of Kyain in the Ataran Division on the 31st October 1883 and was not recovered up to the end of the year. The health of the elephants continued good during the year, with the exception of one of the elephants attached to the East Salween Division, which had a slight return of the illness of the previous year. The two depôt elephants at Moulmein continued to do good service throughout the year. Appendix A (1) shows the average cost of feed and keep of elephants in this circle to have been Rs. 24-7-2 per animal. Although the rule has been adopted of limiting the issue of paddy rations to elephants in depôts, yet there are occasions when carriage elephants employed in the forests have to be supplied with rations for a day or two at a time owing to the great scarcity of green fodder in the vicinity of divisional headquarters and in the plains during the dry season. The elephants in depôt are supplied at the rate of one basket daily for the large elephant and half basket for the small elephant.

Interchange of seeds and plants.

88. Ten requisitions for seeds were complied with during the year, namely,—

Deputy Conservator of Forests, Orissa, Cuttack ...	20 baskets teak seed.	*Pterocarpus indicus*).
Conservator of Forests, Pegu Circle	6 baskets padauk seed	
Chief Secretary to Government, South Australia, Adelaide.	1 case areca ripe nuts.	
Officer in charge Cantonment Gardens, Rangoon ...	50 seedlings *Pinus merkusii*.	
Conservator of Forests, Pegu Circle	5,300 seeds of *Ceara* or *Manihot Glasiovii*.	
	Packet *Broussonetia papyrifera* seed.	
Deputy Conservator of Forests, Kurseong Division, Kurseong	Ditto ditto ditto.	
Conservator of Forests, Assam		
Superintendent, Royal Botanical Gardens, Peradenya, Ceylon	1 packet of *Pinus merkusii* and *Pinus khassya* seed.	
Superintendent, Royal Botanical Gardens, Calcutta ...	Packet pyingado (*Xylia dolabriformis*).	

A case of plants of *Castilloa elastica* was received from the Superintendent, Botanical Gardens, Ceylon, and forwarded to the Mergui plantation.

Specimens of wood and barks forwarded to the Edinburgh Forestry Exhibition.

89. The following specimens of wood were forwarded to the Edinburgh Forestry Exhibition :—

Padauk	....	*Pterocarpus indicus* (Wild).
Thitya	....	*Shorea obtusa* (Wall).
Thitkado	....	*Cedrela toona* (Roxb.).
Thitka	....	*Pentace burmanica* (Kurz).
Ingyin	....	*Shorea siamensis* (Mig.).
Anan	....	*Fragræa fragrans* (Roxb.).
Karawe	....	*Cinnamomum*, sp.
Kanzo	....	(Unknown.)

Of barks the following 28 varieties were also forwarded :—

Mahlwa	....	....	*Spathodea stipulata* (Wall).
Petthan	....	....	*Heterophragma adenophylla* ( ).
Bwètgyin	....	....	*Bauhinia variegata* (L.).
Nabo	....	....	*Odina wodier* (Roxb.).
Palan	....	....	*Bauhinia racemosa* (Lamk.).
Dônshaw	....	....	(Unknown.)
Shawni	....	....	*Sterculia villosa* (Roxb.).
Dwani	....	....	*Eriolæna candollie* (Wall).
Swaydaw	....	....	*Bauhinia monandra* (K. Z.).
Myauktaka	....	....	*Bauhinia ornata* (K. Z.).
Mineah	....	....	*Cordia*, sp.
Tayaw	....	....	*Excœcaria agallocha* (L. E.).
Lein	....	....	*Terminata bialata* (Wall).
Letpan	....	....	*Bombax malabaricum* (D. C.).
Shawwa	....	....	*Sterculia ornata* (Wall).
Didu	....	....	*Bombax insigne* (Wall).
Thanat	....	....	*Cordia myxa* (L.).
Thinban	....	....	*Hibiscus tiliacus* (L.).
Saukyo	....	....	(Unknown.)
Banbwe	....	....	*Careya arborea* (Roxb.).
Shawbyu	....	....	*Sterculia versicola* (Wall).
In	....	....	*Dipterocarpus tuberculatus* (Roxb.).
Kye	....	....	*Barringtonia racemosa* (D. C.).
Dwabôk	....	....	*Kydia calycina* (Roxb.).
Wetshaw	....	....	*Sterculia colorata* (Roxb.).
Nyaunglan	....	....	*Ficus*, sp.
Ma-u	....	....	*Sarcocephatus cadamba* (Mig.).
Nyaungkat	....	....	*Ficus*, sp.

Tours of Conservator.

90. On the 11th April the Conservator proceeded to Tavoy, and thence to the Mintha reserve and obstructions in the Mintha stream, and finally visited Mergui and returned to Moulmein on the 2nd May. The Amherst plantation was visited on the 12th May, and Natchaung on the Zami river between the 16th and 19th July. The Conservator visited the Mibôn, Mizaing, and Kamawmaung salving stations on the Salween on the 24th and 25th September and examined a portion of the Pandaw leased forest on the 26th September. On the 6th and 7th October Zimethwè and Thatôn were visited; and on the 12th October the Conservator proceeded on duty to Rangoon, where he was detained till the 18th. Between the 24th and 31st October the Conservator visited Tavoy and Mergui, and proceeded on the 21st November to the West Mèpalè reserve in the Middle Thaungyin district, East Salween Division, whence he returned *viâ* Kawkareik to Moulmein on the 3rd December. In January the Pandaw leased forest and the Misan and Kyaukpya (Lower Salween) forests were inspected; and on the 26th January the Conservator proceeded *viâ* Ihè on the Dôndami and Bilin reserves to Papun, arriving by the 9th February. After inspecting the Wamu and Mèthalauk Upper Salween reserves, the Conservator proceeded to the Sinzwè and Kahilu reserves and returned to headquarters by the 25th February. Between the 8th and 27th March the Conservator visited the several reserves and plantations in the Ataran division.

Services of officers and subordinates.

91. The several Divisional Officers have done good service during the year in the care and management of their several divisions, and this has been specially so in the case of the Salween and Kado Divisions, the charge of which, coupled with the judicial work it involves in the protection of timber on the Salween, reflects no little credit on Mr. Aplin, the Divisional Officer. The Conservator has reason to be satisfied also with the work of his office, superintended by Mr. Johnson, and with the work of other office establishments.

W. J. SEATON, Lt.-Col.,
Conservator of Forests, Tenasserim Circle.

APPENDIX A.

Note on the Teak Forests on the Feeders of the Salween river beyond the Frontier.

In the Forest Administration Report for 1861-62, pages 33—35, it was deemed necessary to review in detail all the principal sources of supply of teak timber then known.

The conclusions arrived at were that there were no immediate fears of a short supply of teak timber, although it was evident that the supply from Upper Burma, the tributary Shan States, the Karenni states, and the country under the Siamese Governors of Zimmè and Yahaing might at any time be interrupted by political complications and local disturbances.

It was further stated that independently of the care bestowed on the teak localities within British territory, it would be right to explore the forests beyond the frontier with a view to forming a more reliable estimate of their resources.

This latter suggestion was never acted upon, and perhaps subsequent facts may be accepted as precluding the necessity for its adoption, the conclusions then arrived at as to there being no immediate fears of short supplies having been more than verified.

The next reference to the condition of the forests beyond the frontier is to be found in the Inspector-General of Forests' suggestions regarding forest administration in British Burma, dated the 12th May 1880.

The total quantity of teak timber imported from foreign territory during the fifteen years closing with 1878-79 was noted as follows in tons of 50 cubic feet:—

	Irrawaddy and Sittang.	Salween.	Total.
Five years, 1864-65 to 1868-69	88,578	302,192	390,770
Five years, 1869-70 to 1873-74	86,203	351,431	437,634
Five years, 1874-75 to 1878-79	231,563	685,506	917,069

It was stated that while a proportion of the forests on the feeders of the Salween river had been nearly worked out, there were large areas up to that time almost untouched on the tributaries of the Sittang and Irrawaddy rivers, and that this fact justified the hope that the then existing rate of outturn would be maintained for a considerable period. The exhaustion, sooner or later, of some of the Irrawaddy and Sittang and other forests, and deterioration of the forests generally over very large areas, were at the same time prognosticated as the sure result of unchecked taungya-cultivation and the removal, more or less, at one time of a large proportion of the seed-shedding trees.

As regards the maintenance of the then existing rate of outturn, there is every reason to believe, from the figures of the past five years noted below, that the conclusions arrived at in 1880 are likely to be fully verified:—

	Irrawaddy and Sittang.	Salween.	Total.
1879-80 to 1883-84	1,83,786	5,73,194	7,56,980

In respect to the exhaustion of some of the forests, there are unmistakeable signs at present pointing to this conclusion, and it will therefore be useful to note in detail what is known regarding the forests on the tributaries of the Salween, which have been worked during the longest period, and which have hitherto constituted the principal sources of supply.

Although no actual survey has been made of the transfrontier forests on the feeders of the Salween river, yet, as regards the immediate falling-off of supplies indicative of exhaustion, a fairly correct view of the situation is quite possible on the basis of the arrivals of timber reported and registered at the Kado revenue station during the past twenty-five years, or since 1859-60, up to which records are available.

It is assumed that a safe index of the rapid or slow process of exhaustion to which these forests are subjected is to be found in the average yearly outturn supplemented by information in explanation of very marked fluctuations in the same.

The quality of the outturn as regards a preponderance or otherwise of undersized logs and short pieces may be however considered as the most important factor in estimating the actual condition of each separate forest.

It is therefore to be regretted that the data available on this head cannot be regarded as very accurate since the introduction of the *ad valorem* system of assessing duty, there being then no incentive on the part of importers and purchasers to report the precise number of undersize logs, while on the other hand there was every inducement to exhibit, as formerly in the teinsas (certificates), as much fullsize timber as possible.

The figures which are obtainable must therefore be regarded as only approximately correct, except in the case of the last two or three years' figures, which are known to be more or less correct.

Taking the several forests in the order which it has been usual to note the yearly imports, the first to be touched upon are the Karenni forests.

Karenni forests.

2. These forests have up to the present exhibited no signs of exhaustion, but on the contrary have responded to the great rise in the price of teak which commenced in 1881-82.

It has to be remembered however that a large quantity of timber, reported and registered as "Karenni" for the sake of the high reputation of Karenni timber, is the product of the Upper Mèpa, Mètè, Mèsa, Mekaungyi, Mosalin, and Megui forests, wholly or in part within the territory of the Siamese Governor of Zimmè, and of the Mèhan forests to the south of the Gyaingdaung forests, and partly within the territory of Zimmè and partly within that of the Meikpan Sawbwa. The outturn from the Karenni forests, including those above mentioned, amounted in 1883-84 to 91,638 tons of fullsize timber, the highest figure ever attained since the working of these forests commenced. The previous highest yield was 81,831 tons in 1864-65.

The rise in prices also affected the outturn of undersize logs and pieces, the tonnage of such timber increasing from 460 and 641 tons in 1881-82 to 1,741 and 2,927 tons respectively in 1883-84.

That the Karenni forests will continue to be the chief source of supply for some years is borne out by the following figures, showing an increased average outturn of 22,000 tons fullsize timber during the past ten years as compared with the annual outturn during the previous fifteen years :—

	Fullsize.	Undersize.	Pieces.
	Tons.	Tons.	Tons.
Average annual outturn between 1859-60 and 1873-74 ..	45,000	800	5
Between 1874-75 and 1883-84	67,606	541	1,368

Nevertheless the reports to hand regarding the condition of a large proportion of the Karenni forests (proper) show conclusively that fullsize timber has become very scarce and is only procurable at great distances from the waterways.

A diminution in the arrivals of Karenni timber might therefore be justly looked for ere long, but for the fact that large and almost untouched areas of teak forests remain at the sources of the Mèkaungyi and Mèhan streams contiguous to the Karenni forests. In the Mèhan forests, for instance, above the hills where the channel of the Mèhan stream is subterranean for a considerable distance, there are estimated to be at the lowest computation 200,000 fullsize trees.

The preservation of the Upper Mèkaungyi forests has been due to similar physical difficulties in the extraction of timber, and in them also extensive forests remain which contain a large supply of fullsize timber.

Although signs of exhaustion are yet somewhat distant, it may be safely concluded that a considerable decrease in the outturn may be looked for should the price of first-class timber fall very much at Moulmein.

The expenses in the extraction of timber are very high in these forests, the price of rice delivered in the forest being as high as Rs. 7 to Rs. 10 per basket and occasionally as much as Rs. 18 per basket.

Under these circumstances it is not surprising the Karens and others who work the timber demanded this past season as much as Rs. 50 to Rs. 70 per fullsize, sound log delivered at the bank of the Mèzalin and Mèsa streams and Rs. 80 per log thus delivered in the Karenni (proper) forests. In addition the importers have to bear expenses connected with the pushing of the timber down the different large tributaries to their junction with the Salween river, an operation requiring 30 to 40 elephants in each stream and occupying several months in the dry season.

Foreign Thaungyin forests.

3. The foreign Thaungyin forests also responded to the late rise in prices, the outturn in fullsize timber increasing from 10,450 tons in 1881-82 to 27,932 tons in 1883-84; but the average of the last ten years, as noted below, exhibits a decrease in such timber and a marked increase in inferior timber as compared with the average outturn of the previous fifteen years :—

		Fullsize.	Undersize.	Pieces.
		Tons.	Tons.	Tons.
Average annual yield	1859-60 to 1873-74 ..	22,000	1,000	185
	1874-75 to 1883-84 ..	18,786	1,890	4,639

From enquiries among the Karens, who work many of these forests although residing on the west or British side of the Thaungyin river, it appears that marketable trees are now exceedingly scarce, and that as a consequence of this the girdling of undersized trees down to a minimum girth of 4 feet and even less has commenced on a large scale. In the Mèlamaung valley alone between 10,000 and 20,000 undersized trees have lately been girdled, and of the timber now in course of extraction, 20,000 logs, one-half at least is reported as being undersize. This latter information is corroborated by the arrivals reported at the Kado revenue station since the 1st April, showing a very large percentage of the timber to comprise undersized logs and stem-pieces.

	Fullsize.	Undersize.	Stem-pieces
	Logs.	Logs.	Logs.
Reported between 1st April and 3rd June ..	2,715	1,768	5,483

The balance of foreign Thaungyin timber at Kado on the 10th June was reported as—

Fullsize.	Undersize.	Stem-pieces.	Total.
8,431	2,546	7,426	18,403

These figures are significant in showing that the stock of marketable fullsize trees in the foreign Thaungyin forests is being rapidly exhausted and that in the course of a few years these forests will cease to rank as one of the main sources of supply of fullsize marketable timber. In the meantime such timber will doubtless be extracted in limited quantities from the distant sources of many of the streams and localities hitherto deemed too steep and difficult to work.

Hmainglôngyi forests.

4. Next in order of productiveness are the Hmainglôngyi forests within the territory of the Chief of Zimmè, which are estimated to have yielded upwards of 289,250 tons of fullsize timber in the last twenty-five years ending with 1883-84. These forests have a high reputation for timber of good lengths and fine quality, but owing chiefly to certain changes among the parties engaged in the extraction of timber, there has been a considerable falling-off in the outturn of the last three years thus noted:—

	Tons.
1881-82	8,944
1882-83	6,797
1883-84	4,577

Since the expiry of the lease under which these forests were originally worked for twelve years by Maung Man Taw, of Moulmein, the Siamese official charged with the collection of duty has hesitated to continue the former system of working, which terminated in litigation with the leaseholder. His intention is apparently to work the forests in his own name, as proved by his having obtained a large loan in Moulmein for that purpose on the security of 9,000 to 10,000 logs ready for removal. The fact however remains that there has been a steady decrease in the outturn of these forests since 1875-76, when the maximum annual yield hitherto attained took place, namely, 30,713 tons of fullsize timber and 282 tons of stem-pieces: this, together with the subsequent importation of a larger number of stem-pieces and the reports to hand of marketable timber being scarce and very distant from the main waterways, unitedly tend to prove that the exhaustion of these forests has commenced and that in a few years only very limited supplies of fullsize timber will be forthcoming from them.

Gyaingdaung forests.

5. The timber from these forests has always held a secondary place in point of quality to Karenni timber, and this will explain the fact that these forests have not been much resorted to and are still believed to contain considerable quantities of timber, although in the twenty-five years between 1859-60 and 1883-84 they have yielded 70,886 tons. The average yield during the last ten years and the previous fifteen years was as follows:—

		Fullsize.	Undersize.	Pieces.
Average between	1859-60 to 1873-74 ..	4,726	267	4
	1874-75 to 1883-84 ..	12,376	83	1,442

The large increase in the average yield of the last ten years may be accepted as confirming the reports current regarding the present condition of these forests; and hence it would appear that they are likely to maintain the above average outturn for some years, although the increase in the yield of pieces would certainly indicate part exhaustion in certain localities.

Dagwin forests.

6. These are known to be forests of no very great extent, yet the arrivals reported at Kado in the twenty-five years since 1859-60 amounted to 35,429 tons fullsize, 1,320 tons undersize timber, and 30 tons of pieces.

The same causes have doubtless operated on the working of these forests as in the case of the Gyaingdaung forests; and from the fact that the average annual yield during the last ten years exhibits a very considerable increase, it may be safely inferred that no immediate falling-off is likely to take place in the supplies of fullsize timber:—

	Fullsize.	Undersize.	Pieces.
Average between 1869-70 and 1873-74	2,362	88	2
Ditto 1874-75 and 1883-84	5,339	230	230

The average annual yield for the entire period of twenty-five years between 1859-60 and 1883-84 is fullsize 3,553 tons, undersize 145 tons, and pieces 93 tons, and this average doubtless will be maintained for several years.

Conclusions to be drawn from the condition of the transfrontier Salween forests.

7. It will thus be seen that of the five main sources of supply on the feeders of the Salween, the one which has hitherto held the second place, namely, the Siamese Thaungyin forests, are in course of rapid exhaustion, while another, the Hmainglôngyi forest, is giving signs of exhaustion and will ere long fall in rank of importance below all the other forests.

Having regard to these facts it may be safely assumed that with the exhaustion of the Siamese Thaungyin forests import of fullsize timber by the Salween will necessarily decline in a few years.

As regards the total imports of foreign timber from all sources, no decrease is likely to take place in view of the activity now displayed in the working of the Chindwin and other extensive forests in Upper Burma into which several hundred dragging elephants have been drafted from the Salween forests during the last three or four years.

The following figures exhibit the import of foreign timber from all sources during the last six years :—

	Salween. Logs.	Sittang. Logs.	Irrawaddy. Logs.
1878-79	125,433	47,134	6,406
1879-80	111,537	29,580	3,227
1880-81	87,951	9,765	7,500
1881-82	95,077	24,386	6,962
1882-83	116,878	35,126	15,637
1883-84	161,751	32,621	18,982

Although no information is to hand as to the precise extent and present resources of the forests on the Sittang river, it is significant that the imports exhibit no great decrease within the last six years, although there has been a very heavy drain on them for many years.

On the Irrawaddy river on the contrary there are known to be extensive areas almost untouched, and a very material increase in the imports from this quarter may consequently be expected.

In summing up therefore all that has been noted on the present condition of the foreign forests, it appears but reasonable to hope that the present rate of outturn will be maintained for some years.

What the duration in question will be it is impossible to estimate, but sooner or later the adverse circumstances under which these forests have been and are still being worked must cause a decline in the outturn.

In the case of some forests the decline will be rapid and in others doubtless somewhat gradual.

The subject naturally suggests among others the question when and to what extent will the Government forests be in a position to meet and make up for the pending decrease in foreign imports, but the consideration of this would be altogether beyond the scope of this note.

The present yearly increase of about 1,200 acres to the area of teak plantations in the province already aggregating 11,221 acres, and the demarcation of all valuable teak localities for protection and improvement, sufficiently indicate the policy of Government in the matter.

The effects of the importation of large quantities of undersize timber.

8. There is one question however which demands consideration, namely, the extent to which undersize and inferior timber will be imported on the exhaustion of extensive forest areas in foreign territory.

As regards the Tenasserim Forest circle it is a very serious question, owing to the value of the Tenasserim forests in respect to supplies of marketable timber being in a great degree prospective and to the necessity for depending largely for revenue on sales of inferior timber and short-pieces.

This latter description of timber constitutes the chief product of the Lower Salween, Hlaingbwè, and Dôndami forests and largely represents also the outturn from the Ataran forests and a considerable proportion of that also of the Thaungyin forests, being the refuse of former workings and whatever dead and seasoned timber can be obtained by the contractors to supplement the yield of the girdled trees.

The above question compels attention consequent on the great increase of undersize timber in the imports of the Siamese Thaungyin forests now unmistakably nearly exhausted in respect to supplies of fullsize marketable timber and in which the girdling of undersize trees has commenced on a large scale.

Hitherto inferior and undersize timber from foreign sources have entered but little into competition with the like outturn of the Government forests; but now the situation is changed, and a great depreciation may be expected in the prices usually realized on such timber. Thus, as far as can be foreseen at present, the revenue prospects of the Tenasserim circle are likely to be very seriously affected.

In closing these remarks it may be noted however that the greater distance from which such timber has to be transported from many of the foreign forests as compared with the British forests will of necessity preclude the continuous removal of undersize and inferior timber. Large portions of the Siamese Thaungyin forests unfortunately do not fall into this category, these forests being contiguous to the British Thaungyin forests and quite close to the Thaungyin river.

On the other hand the cost of working is somewhat higher in the Siamese forests, and this, coupled with the fact of heavy interest being charged on all advances, may be reasonably expected to place the extraction of undersize and inferior timber at a disadvantage as compared with the operations of the Forest Department. The situation it is evident demands close observation, but in the mean time there can be no doubt that the local market for some time will be glutted by the large quantities of timber of the above description.

W. J. SEATON, LIEUT.-COLONEL,

Conservator of Forests, Tenasserim Circle.

REPORT

ON

FOREST ADMINISTRATION

IN

THE PEGU CIRCLE

For the year 1883-84,

BY

H. C. HILL, Esq., Offg. Conservator of Forests.

INTRODUCTION.

Forest Act and Rules.

DURING the year the Burma Forest Act and Rules under the Act have generally worked well, though a few defects have been found, and the collection of revenue on unreserved woods caused some friction in the Bassein and Thôngwa districts.

Revised Rule 8.

2. By notification No. 52, dated the 23rd August 1883, Rule 8 was recast and unreserved woods, within certain limits, were made free for fishery as well as for agricultural and domestic purposes. The revised rule reads:

"No person shall cut, saw, convert, or remove trees or timber other than reserved trees, with the exception of bamboos, on any land at the disposal of Government unless either—

"(*a*) such trees of timber are cut, sawn, converted, or removed for the building of bridges, resthouses, or other works of public utility or for use, within five miles of the place in which such trees and timber are produced for *bonâ fide* agricultural, fishery, or domestic purposes; or

"(*b*) such trees or timber are cut, sawn, coverted, or removed under and subject to the conditions of a license granted by the Deputy Commissioner or Forest Officer of the district, or by any officer empowered by the Deputy Commissioner in that behalf, in one or other of the forms Nos. VI, VII, VIII, and IX given in the appendix to these rules."

Difficulties in the Bassein and Thôngwa districts.

3. With regard to the collection of revenue on timber used for trading purposes in the Thôngwa and Bassein districts, it is expected that more efficient control and an increased establishment will meet the hardships that have been complained of by sawyers and others, and that no modification of the rules will be found necessary. Breaches of rules were in almost every instance compounded, only six prosecutions having been undertaken in the two districts.

No penalty provided in the rules for illicit felling.

4. The omission to provide in the rules a penalty for the illicit felling, removing, &c., of reserved trees, standing on land at the disposal of Government, but not included in a reserved or village forest, was brought to the notice of the Chief Commissioner and was under consideration at the close of the year.

Distribution of gazetted officers.

5. There were no changes of gazetted officers during the year, and the staff was employed as follows:—

Mr. Popert, Deputy Conservator, Toungoo Division.
Mr. Oliver, Deputy Conservator, Working Plans Division.
Mr. Carter, Deputy Conservator, Tharrawaddy Division.
Mr. Nisbet, Deputy Conservator, Rangoon Division.
Mr. Pickard, Officiating Deputy Conservator, Special Demarcation duty.
Mr. Hauxwell, Assistant Conservator, Shwegyin Division.
Mr. Weston, Assistant Conservator, Prome Division.
Mr. Slade, Assistant Conservator, North Tharrawaddy Subdivision.

Mr. Slade carried on the work of the Working Plans division during the absence of Mr. Oliver on deputation to Calcutta.

Inspection by Conservator.

6. In the beginning of April 1883 the Conservator inspected the Pyunchaung reserve and plantations near Toungoo. From the 6th to the 23rd April the forests of the Toungoo and Shwegyin districts on both sides of the Sittang Valley Railway were examined with a view to the selection of suitable tracts for reservation. The Conservator returned to Rangoon on the 24th April; he was absent at Moulmein from the 15th to 18th May on special duty in connection with the arrangement of the annual report. Prome was visited on the 6th June, and Tharrawaddy on the 24th idem. On the 9th July the Conservator proceeded *viâ* Prome to Henzada and returned to Rangoon *viâ* Ma-ubin and the Tunte canal on the 15th. From the 18th to the 21st the Magayi plantations were inspected, and on the 24th the Conservator left by steam-launch to inspect the timber operations on the Sittang river. Toungoo was reached on the 29th, and Rangoon again on the 5th August. Hlègu, the revenue station on the Paunglin river, was inspected on the 15th September. From the 3rd to the 6th October the Conservator was at Tharrawaddy, and on the 15th the Conservator accompanied Colonel Seaton on a visit to Magayi. Camp was sent off on the 18th November and the Conservator met it at Tharrawaddy on the 22nd, proceeded to Prome, and, after discussing the season's work with the Divisional Officers at these places, went on to Myanaung on the 3rd December. Nineteen days were occupied in the examination of the teak forests of the eastern slopes of the Arakan hills lying within the Henzada district. Henzada was reached on the 22nd, and on the 26th the Conservator proceeded to Ngathainggyaung and Bassein, and returned to Rangoon on the 31st December. From the 2nd to the 4th January the Conservator was at Moulmein, and from the 11th to the 24th absent on special duty at Calcutta. Six days, from the 8th to the 13th February, were occupied in accompanying the Chief Commissioner on a visit to the Magayi plantations in the Rangoon Division and the Môkka Bilin reserves and plantations of the Tharrawaddy district. On the 21st February the Conservator started from Taikkyi railway station and marched through the Hlaing Yoma reserve to the Paunglin, and thence across to the valley of the Pegu river, inspected the girdlings of the past three years and fellings on the Pyinma stream, and arrived at Zaungtu on the 29th; on the 1st March proceeded to the Zamayi reserves, examined the teak taungyas, inspected the blasting operations in the Leikwagale and Gnetpyin streams, and on the 6th crossed the Yoma to the sources of the Beingda stream; marched through the Beingda forests to Nyaunglebin and Shwegyin. He left Shwegyin on the 11th March, inspected the Myitkyo depôt, the Thitsi forests of the Sittang subdivision, made arrangements for the collection of sea-drift, and returned to Shwegyin on the 26th. He proceeded *viâ* Pyuntaza to Rangoon on the 29th March.

CHAPTER I.

Area and Boundaries.

1.—Area.

Unreserved forests.

7. The area of unreserved forests cannot be stated with any reasonable approach to accuracy owing to the large area overrun by taungya-cutters.

Additions to reserves.

7a. The area of reserved forests was increased by the addition of three reserves with an aggregate area of 162·4 square miles, but this scarcely represents the progress made under this head as several areas have been settled and only awaited the final notification. The reserves added are:—

Division.	Reserve.	Area.	Remarks.
Tharrawaddy	Tarôkma and Inma ...	38·4	
Rangoon	Paunglin	107	Includes a Karen area of 7 square miles.
	Letpan	17	

The area of the Thonzè reserve has been corrected by survey from 70 square miles to 109 square miles, and the Karen area within it has been found to contain 15 and not 20 square miles. Form No. 49 has been altered accordingly, and the total area of reserves at the close of the year was 3,039 square miles including Karen areas of 400 square miles.

8. The Kyundaung reserve extension in the Shwegyin division, noticed in last year's report, was finally notified immediately after the close of the year.

Reserves settled by Forest Settlement Officer in the Toungoo district in 1882-83.

9. The five reserves, with an area of 246 square miles in the Toungoo district, reported as disposed of by the Forest Settlement Officer in March 1883, were not gazetted owing to the Chief Commissioner having called for a further report from the Civil Officers, which they were for various reasons unable to furnish during the year.

Reserves settled by Forest Settlement Officer in the Thayetmyo district in 1882-83.

10. The cutch reserves in the Thayetmyo district, with an area of 6,600 acres, were still undisposed of. After an unsatisfactory settlement in 1881-82 they were thoroughly dealt with by a Forest Settlement Officer in 1882-83, and the time for presenting appeals lapsed very early in the year under review. Much delay took place in hearing the appeals and forwarding the proposals, and generally the local officers have shown themselves opposed to the reservation of these tracts as State reserves under any conditions. It is alleged that the people are hostile to the reservation, but this is scarcely a reasonable objection, as the people can only be expected to be in favour of unrestricted enjoyment in the present without regard for the future. It is feared that the reservation would reduce the population and lead to an increase of crime on the frontier. These fears the Conservator believes to be utterly groundless as villagers in the vicinity of the reserves would be granted rights in timber, bamboos, pasturage, &c., within the reserves; and with these requirements provided for in perpetuity the villages would assume a more permanent nature than is now the case with many villages near the frontier.

Reserves settled by Forest Settlement Officer in 1883-84.

11. Before the commencement of the dry season four small reserves were preliminarily notified and Captain T. M. Jenkins, Assistant Commissioner, was appointed Forest Settlement Officer to enquire into and dispose of all claims made in respect to these tracts. Unfortunately the services of Captain Jenkins were only available for occasional periods, owing to his having charge of the district and afterwards being sent away on special duty to the Karen hills. The result was that only three of these reserves were settled and the proceedings relating to these had not been received at the close of the year.

Thandaung proposed reserve.

12. In July 1883 Captain Jenkins was appointed Settlement Officer, and the area proposed to be taken up at Thandaung for a sanitarium as well as a belt of forest, chiefly evergreen, through which the road from Toungoo passes, was notified as a proposed reserve. It is much to be regretted that other work has prevented the Settlement Officer

from completing the settlement of this tract, for the Karens this year have cut and burned their taungyas, on one or two points, right up to the road on the crest of the ridge.

Proposed alteration and extension of the South Zamayi reserve.

13. A proposed alteration of the boundary of the South Zamayi so as to obtain natural boundaries and include 2 square miles of valuable forest was being settled by the Deputy Commissioner of Pegu, who had been duly notified as Forest Settlement Officer.

Preliminary proposals for the formation of reserves in the Sittang Valley.

14. In the Toungoo district 5 tracts, with an area of 234 square miles, were selected for reservation along the line of the Sittang Valley Railway. It was ruled that 4 of these tracts lying in the plains adjacent to the railway line could not be reserved, and the fifth (Pyuchaung) tract, situated on the outer hills of the Yoma, can be more suitably dealt with in connection with the forests nearer the Yoma and at the source of the Pyu. In the Shwegyin district 3 tracts were similarly selected in the neighbourhood of the railway line, and these at the close of the year were under the consideration of the Deputy Commissioner.

Further proposals for cutch reserves.

15. Proposals that a Forest Settlement Officer should be appointed to enquire into and dispose of claims affecting 8 small cutch forests covering an estimated area of 18¾ square miles were made the subject of special inquiry on the spot by the Commissioner of Irrawaddy, but so far no orders have issued.

Examination of forests with a view to the selection of areas suitable for reservation.

16. Mr. Pickard, Deputy Conservator, after assisting the Civil Officer in the settlement of the Kanni and Chaungmangè and Pabè reserves in the Toungoo district, proceeded to examine and report on the teak forests situated on the lower slopes of the Arakan Yoma range in the Henzada district. A report and proposals for the reservation of some 600 square miles were received at the close of the year. This area however is believed to comprise several hundred square miles of sterile, treeless hills near the Yoma. Teak and valuable forest trees are, with a few exceptions, confined to a belt running north and south across the outer hills.

Village forests.

17. No progress was made in the formation of village forests. A belt of forest bordering the seashore in the Syriam subdivision was examined and a full report, with proposals for its working, was submitted, but no action has been taken in regard to it, or to the Tunte kôndan and Thawunta kwin reported on in the previous year. Mr. Pickard selected an area of 5½ square miles for reservation situated to the south of the Kyetpyugan reserve and between the Irrawaddy Valley line of railway and the Rangoon and Pegu road. This tract may with advantage be kept under forest, but, until it has been decided on what lines forests can be set apart for the supply of fuel and pasturage to villagers, no definite proposals will be made.

Details of divisions.

18. *Prome Division.*—The newly proposed cutch reserves are known as Ingyinbin (½ square mile), Lema (2 square miles), Kuledaung (2 square miles), Taungbwe (1¼ square miles), Magyichaung (1 square mile), Kyaukpyagu (2 square miles), Putkya (8 square miles), Pyagyidaung (2 square miles).

Tharrawaddy Division.—With the final notification of the Tarôkmaw and Inma reserve reservation may be said to be completed in this division. The total area of reserves amounts to 893 square miles inclusive of 165 square miles set apart for Karens.

Rangoon Division.—The Paunglin reserve was sanctioned under notification No. 47 (Forests), dated the 26th July. This reserve as gazetted included, ni addition to the sources of the Paunglin river, a stretch of forest lying in the valley of the Pegu river and commanding an entirely different line of export. It was therefore deemed expedient to notify separately the portions situated on opposite sides of the Paunglin and Pegu watershed. This was done in notification (Forests) No. 63F., dated the 8th October 1883, and the two reserves are now

known as the Letpan reserve (17 square miles) and the Paunglin reserve (107 square miles), including a Karen area of 7 square miles.

Toungoo Division.—The five reserves preliminarily notified were—

Kanni	280 acres;	
Pabè and Chaungmangè	20	square miles;
Gônwe	18	
Palu	7	
Thandaung	13·5	

and Captain Jenkins as Settlement Officer, assisted first by Mr. Pickard and afterwards by the Divisional Officer, was able to dispose of the Kanni, Pabè and Chaungmangè, and Gônwe reserves.

Progress of reservation and proposals up to close of the year.

19. The following table shows the progress made during the year and the state of proposals for reservation at the close of the year :—

Reserve.		Sanctioned during the year.	Preliminarily notified and disposed of by Forest Settlement Officer requiring only final sanction.	Preliminarily notified but not disposed of by Forest Settlement Officer.	Reported on with a view to the issue of preliminary notification.	Proposed as village forest.
		Sq. mls.	Sq. mls.	Sq. mls.	Sq. mls.	Sq. mls.
PROME ...	Talaba	...	5·	...	...	...
	Sanbôk	...	3·5	...	...	...
	North Inlè	...	1·0	...	...	...
	South Inlè	...	0·75	...	...	...
	Ingyinbin	...	...	...	·5	...
	Lema	...	...	...	2·	...
	Taungbwè	...	...	...	1·25	...
	Magyichaung	...	...	...	1·	...
	Kyaukpyagyi	...	...	...	2·	...
	Putkya	...	...	...	8·	...
	Kuledaung	...	...	...	2·	...
	Pyagyidaung	...	...	...	2·	...
THARRAWADDY ...	Tarôkmaw and Inma	38·4	...	...	...	...
RANGOON ...	Paunglin	107·	...	...	...	...
	Letpan	17·	...	...	...	...
	South Zamayi (extension)	...	...	2·	...	...
	Tunte kôndan	...	...	...	...	74·
	Thawunta kwin					
	Tract on seacoast, Syriam subdivision ...	...	...	...	...	33·5
TOUNGOO ...	Myohla	...	25·	...	...	...
	Lônyan	...	17·	...	...	...
	Sabyin	...	48·	...	...	...
	West Swa	...	104·	...	...	...
	Binbyi and Gwethè	...	52·	...	...	...
	Kanni	...	0·43*	...	...	...
	Pabè and Chaungmangè	...	20·	...	...	...
	Gônwe	...	18·	...	...	...
	Palu	...	...	7·	...	...
	Thandaung	...	...	13·5	...	...
SHWEGYIN ...	Tônkan	...	...	...	35·	...
	Upper Kanyinmyaung	...	...	...	10·	...
	Lower Kanyinmyaung	...	...	...	35·	...
	Kyôntaung (extension)	...	6·	...	...	...
WESTERN ...	Myanaung Yoma	...	...	...	637·	...
	Total ...	162·4	295·68	22·5	735·75	157·5

* 280 acres.

2.—*Boundaries.*

Cost of marking boundaries.

20. During the year 75 miles of new boundary line were permanently marked off with stone cairns or earth mounds at an average cost of a little more than Rs. 12 per mile. The cost was slightly higher in the Tharrawaddy than in the Prome division, but on an average 8·8 marks were erected to the mile as against 3·2 in the Prome division. The final demarcation of 50 miles of line in the out-of-the-way Zamayi forests with boards only cost Rs. 6-6-10 per mile of boundary. The cost of repairing and maintaining old lines in the Prome division, the only division where any considerable repairs were executed, was Rs. 2-4-3 per mile.

Final demarcation to be completed with mounds and boards.

21. Final demarcation has in some instances been carried out by means of boards only, while in other cases cairns or mounds have been considered sufficient without boards. As permanent marks to be fixed by survey, stone pillars, or mounds of earth with hard wood posts in their centres, are necessary; but boards nailed along the boundary serve a useful purpose in clearly indicating the boundary line of the reserve to the ordinary passersby. Steps will be taken to have the boundaries of all reserves marked by both boards and pillars.

22. The following table gives the information asked for in paragraph 5 of Government of India Resolution No. 906F., dated the 7th December 1883, namely, the length in miles of boundaries actually demarcated and that remaining to be marked off on the ground:—

Division.	Length of boundaries demarcated.	Still to be demarcated.
	Miles.	Miles.
Prome	326	13
Tharrawaddy	570	*Nil.*
Rangoon	378	200
Toungoo	299	*Nil.*
Shwegyin	23	10
Total ...	1,596	223

Wherever the watershed of a main ridge such as the Arakan and Pegu Yoma form the boundary, it has been considered unnecessary to mark it.

An improved pattern of boundary board.

23. Mr. Oliver, Deputy Conservator, has conceived the idea of having hard-wood boards pointed at one end and driven into trees instead of nailed up to them. By this means the board stands out conspicuously at right angles to the stem of the tree, the cost and carriage of nails is economised, and most important of all each year's growth in the tree instead of tending to split the board or force it over the head of the nail only fixes it more firmly in the tree. It must be admitted that in practice the fixing of these boards is difficult, but with boards of *Xylia dolabriformis* and trees of the *Bombax* and *Spondias* genera, or even others with a soft sapwood to operate upon, these difficulties are not insurmountable.

Detail of demarcation work in the different divisions.

24. *Prome Division.*—The Karen areas of the North and Middle Nawin reserves were permanently demarcated with cairns of stones; the total length of boundary is estimated at 41 miles, and the demarcation of this line with 133 cairns cost Rs. 437, or Rs. 10-10-6 per mile, or Rs. 3-4-7 per pillar. The boundaries of existing reserves were gone over and pillars and boards were repaired or replaced over 160 miles of boundary at a cost of Rs. 363.

Tharrawaddy Division.—The Tarôkmaw and Inma reserve was finally demarcated by 299 earth mounds or stone pillars. The length of the boundary is 34 miles and the cost of demarcation was Rs. 486, or Rs. 14-4-8 per mile, or Rs. 1-10-0 per mound. Some 8 miles of the boundary of the Payagyi

reserve and 10 miles of the Bawbin reserve were repaired at a cost of Rs. 20. The whole of the reserves in this division have been finally demarcated and their outer boundaries are estimated to extend over 360 miles, while the boundaries of Karen areas cover 210 miles.

Rangoon Division.—The demarcation of the South Zamayi reserve has been completed at a total cost of Rs. 450 for 70 miles of boundary. The line has been marked with boards only and in all 907 of these have been nailed up. The actual demarcation of the Karen areas in the Upper Zamayi was only commenced after the close of the year, but Rs. 417 were expended in the preparation and carriage of boards. The boundaries of the areas still to be demarcated extend over some 150 miles. Permanent demarcation work was commenced in March only in the Paunglin reserve, where about 50 miles of boundary have to be completed. Fallen boards were refixed along the boundaries of the Ôkkan, Magayi, and Thitpyat reserves at a cost of Rs. 22.

Toungoo Division.—All sanctioned reserves had been permanently demarcated before the close of the previous year, but in the case of the Kabaung reserve this work has been found to have been unsatisfactorily carried out, and mounds and pillars require renewal. The different reserves have been demarcated as follows :—

Reserves.	Length of boundary line.	Masonry pillars.	Boards.	Stone cairns.	Earth mounds.	Remarks.
Pyunchaung	9	4	a number.	...	...	
Yano	...	...	a number.	...	...	Nearly surrounded by Saing reserve more recently sanctioned.
East Swa	20	...	...	...	60	Three sides only.
Saing...	66	...	...	...	290	Three sides only.
Kyaukmasin	6	...	...	...	43	On the east only. Abuts other reserves and frontier on three sides.
Bôndaung	51	...	...	12	98	
Kabaung	147	...	...	1	587	Includes Karen areas.

Earth mounds or heaps of stones although sufficiently good permanent marks are not conspicuous to the casual passerby and hence it is necessary to have boundary boards as well. These will be put up during the current year.

Shwegyin Division.—The boundary marks of existing reserves were found to be in good order.

CHAPTER II.

1.—Surveys.

Mr. Hörst's report for 1883-84.

25. The Conservator has to thank Mr. Hörst, Deputy Superintendent in charge, for the following report of the operations of No. 7 Party, Burma Topographical Survey, during the field season of 1883-84:

" The party consisting of strength as per margin took the field on the 8th December, but regular work was not started for some days later as the camps had to be formed and moved to their several localities at a distance from Letpadan, where the party assembled after leaving Rangoon.

1 Deputy Superintendent.
4 Assistant Surveyors.
10 Sub-Surveyors for detail survey.
5 Apprentices for detail survey.
4 Sub-Surveyors for traverse survey
6 Apprentices for traverse survey.
2 Burman computors.

" 2. The following programme was laid out for the season's operations :—

Programme.

Detail survey	300 square miles.
Traverse survey	350 ditto.
Triangulation	500 ditto.

Outturn.

"3. The outturn was—

Detail survey, 4-inch scale	.. 220 78 square miles.
Ditto, 2-inch scale	.. 51·66 ditto.
Total	.. 272 44 square miles.
Area traversed	.. 476·00 square miles.
Area triangulated	.. 450·00 ditto.

Close of field season.

"4. Wet weather setting in on the 16th May put a stop to all work, and on the 26th idem the headquarters' camp, which was the last to break up, moved into Rangoon for the recess. It was hoped that the detail surveyors would have been able to remain out till the end of May. Had this been possible the programme might have been carried out.

Triangulation.

"5. The triangulation covers the whole of that portion of country in the Tharrawaddy civil district, which lies north of the Mokka river up to its northern limit and between the Yoma and the eastern boundary of the cadastral survey. Owing to the dense haze which prevailed from the beginning of March to the end of April observations had to be suspended for nearly two months, and consequently there is no triangulation in advance of traverse work which covers the same area as that which has been triangulated.

Traverse survey.

"6. Of the area traversed during the season under report, 164 square miles have been absorbed by the detail survey, leaving about 312 square miles in advance, equal to about a season's work.

Detail survey.

"7. The area surveyed in detail would probably have been exceeded were it not for the number of new hands who were engaged at the close of last recess, and in teaching whom much valuable time, both of the assistants and senior sub-surveyors, was taken up; besides which there was a good deal of sickness among the sub-surveyors, two of whom were invalided and sent away to India before the close of the field season as the only chance of saving their lives.

Standard maps.

"8. The topography of 9 standard maps of 7½ minutes by 3¾ minutes on the 4-inch scale has been completed, and all these maps, besides those in which the 2-inch scale work falls, will, it is expected, be ready for publication by the close of the recess.

Locality of detail survey.

"9. The detail survey operations extended over the Thônze, Kôn Bilin, Kadin Bilin, Môkka, and Minhla reserves, all which are entirely surveyed on the 4-inch scale with the exception of a small portion of the last named. Two unreserved forest tracts west of Kywemakein and Seyua were also brought under survey on the 2-inch scale.

Description of country.

"10. A description of the country is hardly possible without a good sketch-map, or until the standard maps have been compiled; but the survey has been close and laborious as the country is excessively intricate and difficult to get about in. The Yoma, which forms the eastern boundary of the area brought under survey, attains a considerable altitude, and the following are a few of the heights above sea-level which have been determined:—

	Feet.
Kanbutaung	2,261
Sanwinguntaung	2,258
Hill No. 1	1,771
Hill No. 2	1,560
Kagyindaung	1,372
Kyauktada	1,982
Swaggataung	2,026
Sanamaungtaung	2,693
Kyauktada	2,642
Ganbilataung	2,670
Sobutaung	2,150

There are very few pathways crossing the Yoma practicable to elephants, an evil which will be seriously felt when the eastern slopes are taken up, as supplies of every description will have to be drawn from the market towns lying on the Rangoon and Prome railway five or six marches away. The Karen areas are so densely covered with scrub bamboo and kaing grass that it takes an incredible amount of labour and perseverance to cut through them, whereas other parts of the forest are comparatively easy and are got over more rapidly.

Commissariat arrangements.

"11. Supplies being absolutely unprocurable except from the market towns along the railway, a great responsibility rests on the officer in charge. If one can imagine what it is to provide for a regiment of soldiers in a country where there is no local carriage and the commonest necessaries of life are not procurable within 30 or 40 miles, he will form an idea of the anxiety and extra work which this duty alone imposes when about 600 men have to be provided for over a period of 5½ months. Care had to be taken that the provision depôts, of which there were three in the forest, were kept properly stocked, as even a day's failure would have proved disastrous.

"12. The scarcity of water during the last six weeks was severely felt, and time was lost in searching for springs or digging wells, frequently without success. Pools are often found, but generally poisoned by the Burmans for the purpose of killing fish; of course the offenders take good care they are not detected.

Scarcity of water

"13. There has been a great improvement in the health of the party over last year, still 369 days were lost from sickness, giving an average of 17·5 to detail surveyors, equal to the services of two men a month, and 7·5 to traverse surveyors. The only cause which can be assigned to this large difference is that traverse surveyors go rapidly over the ground, whereas the others have to remain many days at one place and are often compelled to encamp in malarious localities. The menial establishment, composed chiefly of Bhuias from Hazaribagh, suffered little. There were 498 admissions to hospital and 4 deaths as compared with 26 last year among a much smaller body of men, of whom 4 died on the voyage back to India, and many who went away sick died after reaching their homes from the disease contracted while working in the forest. The prevailing diseases have been malarious fever, bowel-complaint, and itch of a virulent type.

Health of the party.

"14. The marked improvement in the health of the khalasis is not due to the healthiness of the season, which was considered an unusually sickly one by the Karens, who suffered more than usual, but to the men being of a hardier race and denizens of forest tracts in the Hazaribagh district, where their food consists of dâl and rice from their infancy, and also to the precautions taken to make them build raised platforms, or machans, to sleep on at every encampment.

Probable cause of improvement in general health.

"15. The cost of the party may be estimated at Rs. 1,03,847 from the 1st October 1883 to the 30th September 1884, comprising eight months' actual and four months' approximate expenditure, detailed as follows:—

Cost rates.

Triangulation, 450 square miles, Rs 8,703, at Rs. 19·5 per square mile.
Traverse survey, 476 square miles, Rs. 46,737, at Rs. 98 3 per square mile.
Detail survey, 4-inch, 221 square miles, Rs. 44,511, at Rs. 201·7 per square mile.
Detail survey, 2 inch, 52 square miles, Rs. 2,985, at Rs. 57 6 per square mile.
Special survey of Tundaung near Thayetmyo, 2,220 acres, Rs. 911, at Rs 2·7 per acre.

The five heads from which these items are abstracted are as follows:—

	Rs.
Superintendents	14,786
Assistant surveyors	18,489
Sub-surveyors	16,012
Native establishment	41 570
Contingencies	12,990
Total ..	1,03,847

Comparison with a party in India.

"16. The corresponding expenses of a topographical party (the Gwalior and Central India Survey) in India during season 1882-83 were—

	Rs.
Deputy and Assistant Superintendents	21,653
Assistant Surveyors	17,118
Sub-surveyors	4,446
Native establishment	6,776
Contingencies	4,689
Total ..	54,682

showing that the cost of Native establishment in Burma is six times as heavy as that in India and the contingencies are more than double.

"17. It will be as well to state that there was an extraordinary charge of nearly Rs. 6,000 for the purchase of elephants during the year: this item alone adds considerably to the rate per square mile, but it is not likely to occur again if a few animals can be obtained as usual on loan from the Commissariat Department, or if those attached to No. 2 Cadastral Party are transferred in the event of that party leaving the province; otherwise it will be necessary to purchase four elephants more before taking the field.

Cost of elephants.

"18. It is reasonable to expect that the progress of the party will improve for the next year or two, but will never be very much more than 300 square miles. The objections against introducing any modification of the present system of survey with a view to increase the area are as follows. The forest tracts consist of primeval forest so dense as to obstruct the view entirely, thereby rendering any attempt at sketching or putting in details approximately almost impossible to any but the most experienced hands. The modified system as desired by the local Government necessitates a rigorous survey of streams over half a mile in length and of the main ridges, which are not distinguishable till actually surveyed. As a rule streams of half a mile in length are used for dragging timber

Objections to further modification of present system.

and to survey them it is necessary to follow them up; and to make sure that none are omitted cross routes must be run at intervals of 15 or 20 chains. Apart from the consideration of determining the geographical features accurately, there are other details of equal importance which are required for the information of the Forest Department, such as—

forest boundaries;
blazed dragging and foot path;
Karen areas;
teak plantations;
compartment boundaries for classifying trees and calculating the value of the forest;
fire-traces;

If these details are to be furnished, the geographical features may at the same time be determined also since the ground has to be traversed. Lastly, if all other considerations were to give way to a more extensive reconnaissance, it would be impossible for the traverse plots to be furnished in time for the detail survey, since the rate of speed would exceed that of the traverse survey, and the advance work would be more costly than the topography if the establishment were increased to meet the demand."

2.—Working Plans.

Progress.

26. During the recess season of 1883 the Officer in charge of the Working Plans division was engaged in compiling the data collected during the previous dry weather, completing the permanent demarcation of compartments in the Môkka-Bilin reserve, and preparing maps, &c., for the next season's work. Field work was commenced on the 10th December and brought to a close on the 25th April. Operations were confined to the Thônzè reserve, comprising an area of 69,734 acres, or 108·9 square miles, and full data have been collected for a complete working plan for the whole of this forest. The greater portion of the reserve had already been mapped on the scale of 4 inches = 1 mile before the commencement of the season, and tracings of the remainder on the same scale were supplied by the Topographical Survey Department as the field sheets came to hand.

Division of Thônze reserve into blocks and compartments.

27. The reserve has been divided into blocks and compartments as follows:—

Kodugwo	block,	19,285	acres with	43	compartments.
Natchaung	do.,	9,327	,, with	20	do.
Yegyi	do.,	18,893	,, with	29	do.
Yoina	do.,	12,867	,, with	18	do.
Karen area	do.,	9,412	,, with	4	do.
Total	...	69,734	acres with	114	compartments.

In the Karen area the compartments have an average area of 2,370 acres, in evergreen forest occurring in compact masses 769 acres, and in teak-producing forest 514 acres. In the fire-traced area in the Natchaung block which is being brought under teak taungya-cultivation the compartments average only 293 acres in extent.

Classification of the forest growth.

28. The Thônzè reserve may be roughly classified as follows:—

	Acres.
Pônzo or other unproductive forest in the Karen area excluded from the working plan	8,200
Evergreen forest	8,000
Teak forest	53,534

The latter however includes some 5,000 acres of inaccessible hills from which timber cannot be extracted. Cutch trees are found associated with teak over about 8,000 acres.

Boundaries of compartments.

29. The compartment boundaries, except where they follow large streams or unmistakable ridges, have been demarcated by a cleared line with all trees on the line marked with a hammer, and at the salient angles hard-wood posts and mounds have been erected,

bearing iron plates stamped with the numbers of the adjacent compartments. Latterly, where large pyingado or other suitable trees were found conveniently situated, the numbers have been nailed on to large blazes cut in the heartwood instead of posts: this method is cheaper and was suggested by finding that some numbers which had been similarly affixed to trees in 1859 were for the most part still intact.

Experiment with boards driven into trees.

30. As an experiment in demarcation the western boundary of compartment No. 54 has been demarcated with pyingado boards 9″ × 3″ × 1″. The boards instead of being fastened with nails were sharpened at one end and driven into trees at intervals of about 150 feet: this system is likely to prove a success in permanently demarcating reserves but is too costly for interior lines; and for compartment boundaries the old system of blazed lines should be adhered to, the number of the compartments being nailed on to trees at intervals of about 300 yards. Compartment boundaries almost invariably follow natural features, and there is not the same necessity for their being made as conspicuous as the outer boundaries of reserves.

Valuation survey plots.

31. In order to value the forest, well-defined plots, the areas of which could be taken off the map, were selected and the trees standing on them counted out: these sample areas in each compartment were chosen so as to include different varieties of soil, situation, and forest. Altogether 223 plots, with an aggregate area of 6,093 acres, were counted out: 213 plots were in teak forest, and the remainder in evergreen tracts. The proportion of teak forest counted (excluding inaccessible portions) was 11·8 per cent. and of the whole reserve 8·7 per cent.

Enumerators and measurers.

32. At the beginning of the season 10 enumerators on Rs. 30 and some 50 measurers and coolies were employed, but it was soon found that eight parties were as many as one officer could well supervise and work was afterwards continued as far as possible on this scale.

Estimate of growing stock.

33. In estimating the stock of the forest the averages of surveys carried out in forest of similar character have been taken, and the result applied to the areas of which they are a sample, deduction being made for inaccessible or unproductive areas. The result of these calculations shows that the present stock of the reserve is in round numbers as follows:—

Girdled or dead teak trees	2,600
Marketable green teak trees—	
Two-and-a half feet diameter and above	8,800
Two to 2½ feet diameter	15,900
Sound green teak trees—	
One-and-a half to 2 feet diameter	37,900
One to 1½ feet diameter	89,500
Below 1 foot diameter, dominant	192,800
Ditto ditto, suppressed	88,400
Unsound green teak trees—	
Above 1 foot diameter	16,500
Below ditto	11,300
Trees other than teak 1 foot in diameter and above—	
Cutch	10,000
Kanyin	4,700
Thingan	800
Pyinma	27,000
Pyingado	15,300
All others	432,000

"Suppressed teak trees" comprise for the most part small seedlings: these escape observation after the leaves have fallen, and the figures under this head are therefore no doubt very much underestimated, the surveys made early in the season invariably showing a much larger proportion of these than those later on.

Comparison with previous surveys.

34. Compared with previous surveys made in the same forests, the number of teak trees per 100 acres teak-producing forest stands as follows:—

Area and date of survey.	Teak trees 6 feet girth and above.	Trees 4½ to 6 feet girth.	Trees below 4½ feet girth.
Linear surveys made in 1858 and 1863 extending over 1,817 acres ...	117	105	392
Linear surveys made in 1868-69 extending over 1,268 acres ...	105	134	1,907
Sample plot countings of 1883-84 extending over 5,804 acres ...	57	88	848

The linear surveys appear to have been generally carried along the crest of ridges where teak is always more abundant than in the valleys, and valuation surveys conducted on this principle would naturally give higher results than surveys which include a fair proportion of hill and valley. The only important discrepancy in the figures is the very small number of teak trees below 4½ feet found on the earlier surveys: this point was discussed in the Government of India Resolution on the Annual Report of 1868-69, and the increase in small trees attributed chiefly to protection of the forest and partly to the older surveys having been carried out only over a small extent of the Thônzè forest.

Rate of growth.

35. The rate of growth of 130 dominant teak trees of different diameters was tested by means of Pressler's growth-gauge, the trees being bored on at least three sides and the current average radial growth thus ascertained. The following is an abstract of the borings:—

No. of trees bored.	Diameter class.	Current annual diameter growth.
	In dry Forest.	Inches.
6	12 inches diameter and below	0·244
33	13 to 18 inches diameter	0·162
31	19 to 24 inches diameter	0·114
8	25 inches diameter and above	0·104
	In moist Forest.	
3	12 inches diameter and below	0·241
18	13 to 18 inches diameter	0·255
29	19 to 24 inches diameter	0 174
7	25 to 30 inches diameter	0 155

Age of trees of different sizes.

36. The ages of trees of different diameters would therefore be as follows:—

Diameter.	In dry forest.	In moist forest.
	Years.	Years.
At 12 inches diameter	49	49
At 18 inches diameter	86	72
At 24 inches diameter	138	106
At 27 inches diameter	166	...
At 30 inches diameter	...	144

The results for moist forest are almost identical with those obtained in similar forests in the Môkka-Bilin reserve and recorded in table A, page 30, of last year's

annual report. In the dry forest of the Thônzè reserve however, as anticipated at the end of paragraph 7 of the Government of India Resolution on the Administration Report of 1882-83, a much slower rate of growth obtains than in the dry forests of the Môkka-Bilin reserve. The time taken for a tree to attain a diameter of 2 feet is 138 years in the dry forests of the Thônzè reserve as against 110 in the dryest parts of the Môkka-Bilin.

Countings of rings on stumps.

37. Only six stumps were met with on which the rings could be counted and the following is an abstract :—

Class of forest and number of stumps.	Number of rings at				
	6-inch radius.	9-inch radius.	12 inch radius.	15-inch radius.	18-inch radius.
Dry forest, average of 4 trees	64	110	156	...	...
Moist forest, 2 trees	61	83	110	161	203

Expenditure on account of working plans.

38. The expenditure of the Working Plans division from the 1st April 1883 to the end of June 1884 is shown in the following table :—

Head of service.	Charged in 1883-84.		Charged in 1884-85.	Total.		Grand Total
	Môkka-Bilin reserve.	Thônzè reserve.	Thônze reserve.	Môkka-Bilin reserve.	Thônze.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
AI*a*	40	...	...	40	...	40
AVI*b*	353	768	165	353	928	1,281
AVI*c*	...	180	...	...	180	180
AVIII*c*	1,675	2,641	1,835	1,675	4,476	6,151
BI*b*	4,208	4,277	3,200	4,208	7,477	11,685
BI*c*	...	80	80	...	160	160
BI*e*	1,020	500	400	1,020	900	1,920
BII*b*	1,302	474	839	1,302	1,313	2,615
BII*c*	...	3	45	...	48	48
Total ...	8,598	8,918	6,564	8,598	15,482	24,080

The above includes the pay of all establishment up to the end of June, by which time the work will be completed.

Cost of Thônzé working plan and estimate for the future.

39. The total cost of the Thônzè working plan may therefore be set down at Rs. 15,482, or Rs. 142 per square mile. With trained men to do the work and with a more healthy season, it should be possible in future to reduce the cost of working plans to Rs. 70 or Rs. 80 per square mile. The health of the establishment was extraordinarily bad this year and considerably added to the cost.

3.—*Annual Plans of Operations.*

Plan of timber operations interfered with by unfavourable floating season.

40. Plans of operations were submitted with the budget estimate for each division. These plans were considerably affected by the unfavourable floating season, which caused large quantities of timber to be left stranded in the streams. The outturn from the Prome division was short of the estimate by 2,500 logs, while in Tharrawaddy 4,000 logs were reaped, and in the Rangoon and Toungoo divisions a considerable number could not be extracted.

Girdling carried out.

41. Girdling proposals were carried out in accordance with the plans.

Works of improvement.

42. Taungya plantations were generally made as estimated, but in Tharrawaddy they were considerably in excess of proposals. The Divisional Officer found himself unable to carry out a contemplated extension of the regular plantation at Magayi owing to the death of a head Shan on whom he relied for labour. Fire-protection was everywhere attempted as fixed upon in the plans.

Communications and buildings.

43. A blasting party as proposed worked throughout the season in the Zamayi reserves. The building of resthouses was not pushed on owing to the local Government having requested a considerable saving to be made in the allotment under AVII, communications and buildings. The Rangoon Divisional Officer failed to complete the metalling of the road from Palôn to Kinpadi.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

1.—Establishment.

Cost of establishments.

44. The sanctioned permanent forest and depôt establishments remained unaltered and the temporary establishment for 1883-84, exclusive of keep of elephants, cost Rs. 19,701 as against Rs. 16,189 in 1882-83.

Proposed increase to establishments.

45. During the year proposals were submitted for a slight increase to the permanent forest establishments and for the transfer of the revenue-collecting establishments from the temporary to the permanent scale, but owing to the financial state of the province further action in the matter was postponed and the work of the current year is being carried on with such additional temporary establishment as was considered indispensable.

Permanent establishment required for Working Plans division.

46. As yet no regular establishment has been sanctioned for the Working Plans division, but now that the survey of the forests is sufficiently advanced to provide, if not published maps, tracings of the field sheets suitable for carrying on the work, a fixed establishment will have to be entertained. This establishment can during the rainy season be specially employed in the different divisions in superintending taungya and other cultural operations, and with experience in such works the men will be most valuable in helping us to extend teak taungya amongst those Karens, who at present do not understand planting and hesitate to undertake the work without some one to instruct them in the minutest detail.

Cost of establishments in different divisions.

47. The following statement gives the cost of establishments division by division :—

Forest and depôt.	Sanctioned permanent.	Sanctioned temporary.	Actual cost of permanent.	Actual cost of temporary.
	Rs.	Rs.	Rs.	Rs.
Agency	11,160	9,552	10,868	8,248
Rangoon	7,296	3,900	5,992	2,774
Tharrawaddy...	11,582	4,092	10,842	2,757
Toungoo	6,108	4,360	4,921	1,676
Shwegyin	3,504	2,130	3,040	680
Prome	6,552	2,208	5,888	2,149
Western	4,104	1,488	3,424	1,422
Arakan	...	...	...	...
Total ...	50,256	27,730	44,970	19,701

2.—General Protection and Breaches of the Forest Law.

Summary of prosecutions.

48. In all 116 cases were prosecuted during the year; 99 convictions were obtained against 155 persons. In 15 cases 72 persons were acquitted and 2 cases were pending at the close of the year.

Forest offences within reserves.

49. Breaches of forest law within reserves were limited to—3 cases implicating 37 persons of illicit felling of cutch-trees in the Prome division, similar offences involving 45 delinquents in the Tharrawaddy division, and 5 cases of illicit felling of *in* and pyingado with 2 minor offences in the Rangoon division.

Increase in number of prosecutions.

50. The increase in the number of prosecutions is chiefly due to the Act and Rules having become known, and there being no longer any necessity to admit the plea of ignorance of the rules. The large number of cases in Tharrawaddy resulted from the opening given to timber thieves by the sale of teak standing in and near permanent cultivation, and which was taken advantage of.

Cases compounded.

51. Fifty-six cases were compounded by the Conservator or Divisional Officers for Rs. 2,859.

Detail for the Prome division.

52. *Prome Division.*—Within reserves there were 3 cases of illicit felling of cutch trees. In 1 case 2 men were fined respectively Rs. 65 and Rs. 35. In the other cases, 1 implicating 31 persons and the other 4 persons, convictions were not obtained. This is by no means creditable to the Divisional Officer, whose only explanation is that the 31 men were acquitted owing to some misunderstanding about the boundary of the Thitkat-Ayodaung reserve, and that the other case was discharged because the witnesses were not forthcoming. Considerable attention has been given during the past season to the repairs of boundary marks, and in future similar offences should not go unpunished. In unreserved forests there were 22 cases of unauthorized felling in which 50 men were convicted and 1 was acquitted. Five men were prosecuted in 3 cases for boiling cutch without licenses and 2 were punished. Three men were separately charged with other offences and 2 were convicted. Breaches of forest law were in 8 cases compounded for a total sum of Rs. 94.

Detail for the Tharrawaddy division.

53. *Tharrawaddy Division.*—Breaches of law within reserves were confined to the illicit felling of cutch trees within the Gwedaukkwin and Kyaukkyidaung reserves, for which offence 41 persons were prosecuted under section 26 of the Forest Act. One was acquitted, and of the other 40, 6 were sent to prison for 15 days and fined Rs. 250, 4 were sentenced to one month's imprisonment and fined Rs. 136, and 30 were fined amounts totalling Rs. 391. The above prosecutions and punishments under section 26 proving ineffectual to prevent the theft of cutch trees from these reserves, 4 offenders were proceeded against under the Indian Penal Code; 1 was discharged and the other 3 were sentenced to twelve months' rigorous imprisonment and an additional fine of Rs. 100 each. Outside reserves the chief offences were the numerous thefts of teak trees, 8 persons were prosecuted under the Indian Penal Code and convictions were obtained in each case, 1 man being punished with fifteen days' imprisonment, 2 men with two months each, 1 man with four months, 1 man with six months; 2 persons were fined Rs. 500 and Rs. 1,000 respectively, but those latter got off on appeal and on being proceeded against under section 36 of the Forest Act were convicted but punished with the unintelligibly small fine of Re. 1 each. Thirty-nine similar cases were reported but as the sentence of Re. 1 was not enhanced on revision of the case, and the District Officer did not approve of the offenders being prosecuted, they were not proceeded against: the defence of these men is that they purchased the trees from forest ranger Maung Ne Wun, but without their being marked and without receiving any pass or receipt for the money paid. Maung Ne Wun had been dismissed about two months before these cases came to light and when inquiry was made he was not to be found. The principal offender had been buying teak trees from the Department for years and well knew the procedure, the necessity of having the timber marked and procuring a pass. When

found out too he tried to bribe the new ranger. In the absence of Maung Ne Wun no stronger case could be submitted to a Magistrate.

Under section 36 of the Forest Act 9 persons were prosecuted for felling reserved trees without a license, 7 were fined Rs. 140, and 2 cases were dismissed, the timber being confiscated. Under Rule 8 of the Forest Rules 11 persons were prosecuted for felling unreserved trees without a license. One case was dismissed, but the timber was in each case confiscated, and 10 persons were fined Rs. 162. Twenty-eight cases were compounded by the Divisional Officer:—

Offences.	Men.	Trees.	Amount.		
			Rs.	A.	P.
Felling teak trees without a license	7	53	50	0	0
Felling other reserved woods without a license	8	30	127	1	0
Felling unreserved woods without a license...	71	1,088	488	0	0
Felling undersized cutch trees without a license	4	...	94	0	0
Felling unreserved woods in reserves without a license ...	2	3	30	0	0
For non-registration of marking-hammer	1	...	10	0	0

Rewards were paid to informers amounting to Rs. 145.

Detail for the Rangoon division.

54. *Rangoon Division.*—In reserved forests there were 5 cases of illicit felling and 2 other offences, whilst in unreserved forests there were 6 cases of illicit felling of reserved, 7 of unreserved trees, and 4 minor offences. Four offences were compounded by the Divisional Officer for Rs. 255 and 20 cases were sent for trial; in 14, involving 17 persons, convictions were obtained, while in 5 cases the 21 persons were acquitted. In one of these concerning 13 persons, timber traders of Kommendine, the accused were acquitted of the charge of having in their posession timber illicitly extracted although they knew it was not covered by a pass or hammer-marked. Among the convictions one case was the felling of 3 *in* trees in the Thitpyat reserve under aggravating circumstances. The accused was sentenced to pay a fine of Rs. 200 or undergo 6 months' simple imprisonment. In the Magayi reserve 9 pyingado trees were illicitly extracted, and the accused being convicted on two charges was sentenced to a fine of Rs. 75 or in default to a month and seven days' imprisonment. For illicitly felling *in* trees within the Magayi reserve one man was fined Rs. 200 and another Rs. 50. For girdling young teak in unreserved forests near Ôkkan accused was fined Rs. 10. There was one case of effacing marks on pyingado timber, and one of misappropriation of a piece of teak the property of the Bombay Burma Trading Corporation, Limited, in both of which convictions were obtained and fines of Rs. 100 and Rs. 50 inflicted.

Detail for the Toungoo division.

55. *Toungoo Division.*—In the Toungoo Division there were 4 prosecutions for breaches of forest law in unreserved forests. In all 13 persons were implicated. A Karen was fined Rs. 5 for cutting and burning teak in his taungya. A Shan was sentenced to a fine of Rs. 50 or one month's imprisonment for boiling cutch without a license. Four Burmans were tried for cutting unreserved trees without a license, 1 was convicted and sentenced to a fine of Rs. 10 or fifteen days' imprisonment, the others were acquitted. A case of breach of Rule 17 of the Forest Rules implicating 7 persons was undisposed of at the close of the year. The Divisional Officer compounded offences in 13 instances for different sums amounting in all to Rs. 396. They were all cases of felling unreserved trees without a license.

Detail for the Shwegyin division.

55*a*. *Shwegyin Division.*—No cases were instituted during the year and no offences were compounded. More vigilance on the part of the Divisional Officer and his subordinates would probably give a different result.

Detail for the Western division.

56. *Western Division.*—There were brought before the Courts 12 cases of unauthorized felling of timber in unreserved forests involving 14 persons. Convictions were obtained in 10 cases and 12 persons were punished by fine. One man was acquitted and 1

case was pending. Several rather serious offences were compounded in this Division. Maung Sha, the contractor of the Ôkpo forests, was found to have illicitly girdled 105 trees on feeders of the Kanyin stream. The renewal of his contract was refused, and the Conservator consented to compound the offence under section 66 of the Forest Act for Rs. 1,050, or Rs. 10 for each tree girdled. A small colony of 10 Upper Burmans were found boiling cutch in the Bassein district without a license; they were working with 12 cauldrons, and admitted to having worked with 8 cauldrons in the previous year also without a license. The offence was compounded by the men paying Rs. 30 instead of Rs. 20 for each cauldron used, and the informant was awarded Rs. 40 under Rule 44. Another case of cutch-boiling without a license was compounded by the Divisional Officer for Rs. 65.

Many cases of unauthorized felling in unreserved forests were disposed of by the offenders agreeing to pay revenue in excess of that payable under a license, but in no case exceeding double that amount.

3.—*Forest Fires.*

Increase to fire-protected area.

57. The fire-traced area was considerably increased, 700 acres being added in the Tharrawaddy division and 30,750 in the Rangoon division.

Results compared with previous year.

58. The protection of 104,755 acres was attempted, and 102,984 acres were successfully protected at the reduced rate of a little less than 1 anna and 8 pies per acre attempted, or less than 1 anna and 9 pies per acre actually protected. Failures represent 1⅔ per cent. of the area attempted. In the previous year 73,332 acres were attempted, and 64,973 protected at a cost of 2 annas and 7 pies per acre, failures covering 11 per cent of the area attempted.

Explanation of success.

59. The satisfactory results obtained in what was an exceptionally dry season are due to three causes:—

(*a*) the protection of a large area (30,750 acres) of the South Zamayi at a mere nominal cost of Rs. 110. This tract is triangular, and bounded on two sides by broad streams, so that a fire-trace was required on one side only, and the clearing of this was undertaken by the Karens living on the spot;

(*b*) the promptitude with which fires were extinguished in the Tharrawaddy division, where 19 fires burnt over only 1,050 acres;

(*c*) the continued success in the Toungoo division, where 3 fires spread over only 20 acres, and where the whole of the East Swa reserve (except 10 acres) was protected at the very low cost of 10 pies per acre.

Serious fire in the Chaungzauk, Prome, reserve.

60. The only disastrous fire of the year occurred in the middle of March in the Chaungzauk reserve, and burning over 600 acres traversed 200 acres of plantations. Had the villagers of Kadinngazin turned out in force, and the watchers done their duty, the fire would not have spread so early in the year over such an extensive area.

Area of taungya burnt over.

61. The area of taungya plantations and sowings burnt over was—

Division.	Reserve.	Area.	Year of plantation.
Prome	Chaungzauk	200	1879, 80, 81, 82.
Tharrawaddy	Bwet	27	1881. Sowings.
Ditto	Kangyi	29	1878, 79, 81.
Ditto	Bawbin	2	1877.
Ditto	Myaung-Minhla	42	1874, 75.
Ditto	Thônze	11	1879, 80.
	Total ...	311	...

Damage by fires.

62. The site of the fire in the Chaungzauk reserve was inspected by the Conservator in May and, though few of the plants were killed, the damage was considerable. All of the scorched young trees showed a want of vigour in their terminal shoots and a tendency to branch. There is an inclination on the part of some Divisional Officers to underrate the damage done by fires to individual plants. It must not be supposed that because the terminal shoot has survived the plant is uninjured. A careful examination will show that the bark of the stem is only too often charred to such a depth that the very delicate cambium layer must have suffered and the plant of necessity be retarded in growth, though not killed outright.

Protection of regular plantations.

63. The regular plantations at Magayi were again successfully protected. A fire traversed 30 acres of the Kyetpyugan plantations before it could be extinguished and 3 acres of the Pyunchaung reserve were burnt over.

Cost of fire-protection in different divisions.

64. The cost of fire-protection in the different divisions was—

Division.	Per acre attempted.	Per acre actually protected.
	Rs. A. P.	Rs. A. P.
Promo	0 8 7	0 4 4
Tharrawaddy	0 2 8	0 2 4
Rangoon	0 1 8	0 1 8
Toungoo	0 1 1	0 1 1
For circle ...	0 1 8	less than 0 1 9

Detail for the different divisions.

65. *Prome Division.*—The teak plantation at Prome was successfully protected at a cost of Rs. 24. The area attempted in the Chaungzauk reserve was 3,535 acres, or 27 acres less than in the previous year; of this area 621 acres were burnt over, leaving 2,914 acres as the area actually protected at a cost of Rs. 785. In all 3 fires occurred. On the 4th March a fire crossed the outer trace and burnt over 14 acres before it could be extinguished. On the 14th of the same month a fire was observed by the watchers in the middle of the protected area and, in spite of the efforts and assistance rendered by five of the villagers of Kadinngazin, this fire was not checked until it had passed over 600 acres including 200 acres of plantation.

		Acres.
Plantations of	1879-80	44
	1880-81	40
	1881-82	60
	1882-83	56
	Total ...	200

This area unfortunately represents half the plantations of the reserve. The origin of the fire was not discovered. The villagers of Kyauktan are suspected by the forester with having maliciously set fire to the forest, but of this there is no proof, and it is not improbable that trespassers in pursuit of game are to blame for it. The third fire occurred on the 29th April; it was caused by sparks carried from a taungya that was being fired and burned over 7 acres of an old pônzo not included in area of stocked plantations.

Tharrawaddy Division.—The following fires occurred:—

Date.	Area.	Area of plantation included.	Age of plantation.
	Bwet Reserve.		
April 20th	8	.....	
April 29th	0·5	.....	
April 29th	5	.....	
May 10th	50	25	Sowings of 1881.
May 12th	5	1·5	
Total ...	68·5	26·5	
	Kangyi Reserve.		
April 10th	250	.....	
April 12th	0·25	.....	
April 21st	100·	29	1878, 1879, and 1881.
Total ...	350·25	29	
	Bawbin Reserve.		
May 11th	5·	2·5	1877.
	Minhla Myaung.		
April 27th	150	42	1874 and 1875.
	Môkka-Bilin Reserve.		
March 28th	14	.....	
April 16th	150	.....	
April 20th	50	.....	
April 24th	4	.....	
April 28th	50	.....	
May 1st	200	.....	
Total ...	468	.....	
	Thônze Reserve.		
April 28th	2	.....	
April 30th	8	8	1880.
May 8th	3	3	1879.
Total ...	13	11	
GRAND TOTAL ...	1,050	111	

Little can be said about the origin of the fires; they are in some cases put down to incendiarism, but in no case could the men be traced. Several were due to fire spreading from burning "yas," and the survey coolies are blamed for some of those in the Môkka-Bilin. The area attempted was 700 acres in excess of that of the previous year. The Divisional Officer and his subordinates deserve great praise for the prompt way in which the fires were extinguished for, in spite of the large number, 19, which occurred, only 2·6 per cent. of the total area attempted was burnt over.

Rangoon Division.—A fire took place within the fire-trace of the Magayi reserve but only traversed 50 acres in which there were no plantations. A fire, as already explained, broke out in the Kyetpyugan reserve and traversed 25 acres of the plantations of 1868 and 5 acres of those of 1870. The cost of protecting these reserves and plantations was again high, amounting to 10 and 15 annas per acre attempted. An area of 48 square miles, portion of the South Zamayi reserve, and bounded by rivers, was protected by a fire-trace 50 feet broad, cleared from Dawè stream to Sinzwe, a distance of 2 miles only.

Toungoo Division.—The Pyunchaung reserve was fire-traced at a cost of Rs. 441, or 2 annas per acre. Two fires occurred and traversed 3 acres of plantation and 7 acres of high forests. The Yanè reserve was successfully protected for a little more than 1 anna per acre. Excepting 10 acres, the East Swa reserve, with an area of 17,280 acres, again escaped fire. The cost of protection was only 10 pies per acre, or considerably less than in the previous year.

4.—Grazing and Fencing.

Grazing requirements of villages near reserves generally provided for free.

66. Generally throughout the circle the requirements of the people in pasturage have been amply provided for at the time of reservation, when the right to graze a certain number of cattle and buffaloes over a limited area and during specified months has been granted.

Grazing dues levied in fuel reserves.

67. The so-called fuel reserves along the Rangoon and Prome railway line are an exception to the general rule, and in these there is now a small demand for pasturage which has sprung up entirely since the opening of the line. It has been customary to charge in the Tharrawaddy division 8 annas for each full-grown beast and 4 annas for calves. Grazing dues from the Sitkwin, Satpôk, and Thindawyo reserves brought in Rs. 109. In the Rangoon division, where the fee was 8 annas for each buffalo and 4 annas for each head of cattle, Rs. 56 were collected in the Magayi, Thitpyat, and Thabyu reserves. In future the Rangoon rate will be levied in the Tharrawaddy division.

Fencing.

68. The usual bamboo fence along the southern boundary of the Pyuchaung reserve was renewed at a trifling cost.

5 and 6.—Reproduction by Natural and Artificial Means.

Girdling operations favour natural reproduction in fire-traced areas.

69. Under the head of natural reproduction there is little to report. Wherever girdlings fall within reserves the trees are carefully selected so as to favour reproduction, and the results are markedly good in the fire-traced Môkka-Bilin reserve. Elsewhere, and particularly where fire-protection has been successful for a number of years, the difference between the forest within the boundary and that outside is clearly perceptible.

Taungya-plantations must be absorbed in natural-growing stock.

70. The cultivation of teak and cutch in taungyas, as well as the plantations and sowings in dead bamboo forests, can only be looked upon as aids to natural reproduction, for the limits of these plots could not be maintained (even if there were any advantage in keeping them up after the plants are once guaranteed against suppression) and they must eventually be absorbed into the general growing stock of the reserves.

Regular plantations.

71. The only addition to the regular plantations was made at Magayi, in the Rangoon division, where 40 acres were planted up in two plots of 30 and 10 acres each. The former was cleared and planted by Shan cultivators with the following result:—

Number of yas.	Area in acres.	Total number of trees planted.	Plants per acre.	Alive at end of January 1884.	Cost.		Remarks.
					Total.	Average per acre.	
				No.	Rs. A. P.	Rs. A. P.	
18	30	36,300	1,210 at 9ft. × 4ft.	35,099	392 9 4	13 1 4	Very successful. Average growth, 7—8 pairs of leaves; greatest number of leaves, 15 pairs; highest plants, 4½ feet with 18 pairs of leaves; 96·7 per cent. of area stocked at 9ft. × 4ft.

A second plot of 20 acres was partially cleared by the steam tree-feller and completed by coolies on daily labour. It was, owing to heavy rain in April, only

imperfectly burnt and consequently could only be planted in patches. The half or 10 acres is reported to be fully stocked.

Approximate area in acres.	Number of teak planted.	Approximate area planted.	Plants per acre.	Alive at end of January 1884.	Approximate area successful.	Cost.		Remarks.
						Total.	Average per acre.	
		Acres	Acres.	No.	Acs.	Rs. A. P.	Rs. A. P.	
20	19,080	15¾	1,210 at 9ft. × 4ft.	12,045	10	421 15 4	42 3 2	Plants healthy but small. The cost would have been much less, and the success greater, had work taken place independently of the steam tree-feller experiment.

Failure of an attempt to add further to regular plantations.

72. The Divisional Officer attempted to arrange for the planting up by Shans of 100 acres during the season 1884-85, the area being previously cleared early in the present year by direct departmental agency. The total cost of this experiment was not to exceed Rs. 20 per acre. The Shans however were not forthcoming owing, it is said, to the death of the Shan headman at Kimbadi, and the attempt was fruitless.

Taungya-cultivation generally.

73. Under the head of taungya-cultivation considerable progress has been made and excellent results obtained in the Prome, Tharrawaddy, and Toungoo divisions. In all 797 acres were planted with teak only, 243 acres with teak and cutch in the proportion of 2 to 1, and 124 acres with cutch only, thus making a total area of 1,164 acres stocked as against 608 acres in the previous year and 635 acres in 1881-82.

Teak taungyas.

74. The teak yas averaged all through 694 plants to the acre; they were best in the Tharrawaddy division with 728, nearly as good in Toungoo with 657, but fell off in the Rangoon division to 326 per acre. The cost of these plantations averaged Rs. 10-5-9 in Tharrawaddy, Rs. 11-6-5 in Toungoo, and Rs. 4-8-6 in Rangoon, or over the whole Rs. 9-14-7. The average cost is the same as in 1882-83, when 570 acres were stocked with an average of 608 plants to the acre.

Mixed teak and cutch in taungyas.

75. The yas in the Chaungzauk reserve of the Prome division covering 243 acres were planted up with two rows of teak to one of cutch; they were found to be stocked with 558 plants to the acre and cost Rs. 5-3-8 per acre, which is a very satisfactory result.

Pure cutch in taungyas.

76. In the Gwèdauk kwin and Kyaukkyidaung reserves of the Tharrawaddy division 124½ acres were planted with cutch only. It was intended to introduce a certain proportion of teak by the agency of the local foresters, but owing to sickness the Ranger failed to attend to this work. The area is thoroughly stocked with an average of 738 plants to the acre, the average cost being Rs. 8-1-3.

Plants distanced 9 feet × 4 feet.

77 In the Tharrawaddy division the plants in all taungyas have been put out at distances of 9′ × 4′ instead of 6′ × 6′. Mr. Brandis strongly recommended this form of planting as calculated to greatly facilitate the weeding and to develope the dominating trees more quickly by causing the struggle for existence to set in earlier amongst the trees in the lines.

Detailed results in the Prome division.

78. *Prome Division*—In the Chaungzauk reserve all taungyas were planted up with a mixture of teak and cutch, two rows of the former to one of the latter. The following table shows the result :—

Reserve or block.	Situation.	Village.	Trees.	Yas.	Acres.	Number of plants.		Cost.	
						Total.	Per acre.	Total.	Per acre.
								Rs. A. P.	Rs. A. P.
Chaungzauk.	Near Kadinngazin	Kadinngazin ...	Teak Cutch	20	72·62	43,348	597	403 13 0	5 9 0
	Near Ngalusan ...	Ngalusan ...	Teak Cutch	14	84·56	55,168	652	525 15 0	6 3 6
	Near Ayodaw ...	Ayodaw ...	Teak Cutch	19	86 0	87,317	484	341 12 0	3 15 7
			Total...	53	243·18	185,833	558	1,271 8 0	5 3 8

Detailed results in the Tharrawaddy division.

79. The result of the year's taungya-cultivation in the Tharrawaddy division is shown in the following form :—

Reserve or block.	Situation of plantation.	Name of village planting.	Trees planted.	Number of yas.	Area.	Number of plants. Total.	Number of plants. Average per acre.	Cost. Total. Rs. A. P.	Cost. Average per acre. Rs. A. P.	Remarks.
Kyaukkyidaung ...	Near Pyanchidet	Pyanchidet	Cutch...	12	33·2	31,744	956	342 5 0	10 4 11	
Gwedauk kwin ...	Near Kainggwin and Taungkamauk.	Kainggwin ... Ngapibinkwin ... Taungkamauk ... Letpangon	do. ...	36	91·3	60,155	659	663 8 9	7 4 3	
		Total ...	...	48	124·5	91,899	738	1,005 13 9	8 1 3	
Nyanle	Near Nyanle	Nyanlè	Teak...	5	17·7	13,092	740	150 14 6	8 8 4	
Gwedauksan	Near Gwedauksan... ...	Gwedauksan ...	do. ...	5	17·2	16,823	978	202 3 6	11 12 1	
Kangyi	.....	...	do. ...	19	44·4	36,390	820	492 9 9	11 1 6	
Minhla Myaung ...	Near Teinhmyôk	Teinhmyôk	do. ...	5	28 2	10,100	358	165 8 0	5 13 11	
Minhla-Môkka ...	.....	Shwezinte ...	do. ...	16	130 5	76,900	589	1,093 2 0	8 6 0	
		Sèywa	do. ...	5	15 7	16,750	1,067	214 6 0	13 10 6	
		Aungbwete	do. ...	14	67·0	50,600	755	693 6 0	10 5 7	
Mokka Bilin	.....	Kywemakaing ...	do. ...	18	30 6	31,550	1,031	488 8 0	15 15 5	
		Kyaungywa ...	do. ...	10	25·5	23,550	924	312 15 0	12 4 4	
		Panhlete	do. ...	13	97·4	61,050	627	1,048 8 0	10 12 3	
		Shwegyate	do. ...	9	54 6	50,000	916	694 14 9	12 11 8	
		Sanyate	do. ...	6	36·6	30,950	846	450 8 0	12 4 11	
Thônzè-Kônbilin ...	.....	Dutite	do. ...	22	117 0	79,200	677	1,062 0 0	9 1 3	
		Total ...	...	147	682 4	496,955	728	7,069 7 6	10 5 9	

The Divisional Officer has been most successful on all points, namely, the area planted, the number of plants, and the cost per acre.

Detail for the Rangoon division.

80. *Rangoon Division.*—The taungyas in the South Zamayi reserve extended over 123 acres but were again unsatisfactory, only less than half (57 acres) being stocked and that for the most part indifferently. Seed was collected in the Ôkkan forests and supplied to the Karens, but it failed to germinate, and the entire area would have been practically blank had it not been for the 15,000 transplants from the Madaw stream mentioned in paragraph 24, Appendix A, of last year's report. The Karens certainly take an interest in the work and will in future collect seed on the spot, from which better results may be expected.

The following table shows the detailed cost, &c., of the plantations of 1883-84:—

Reserve.	Locality.	Hamlet (te).	Yat.	Area		Number of plants arrived in March		Cost.		Average cost of whole.
				Cleared.	Planted.	Total.	Per acre.	Planting.	Seed.	
								Rs. A. P.	Rs. A. P.	Rs. A. P.
		Myat Ne ...	24	48	32	10,842	339	108 8 0	72 9 4	4 8 7 per acre.
		Pauk Tu ...	20	60	20	6,750	337	67 7 8		
		Ko Kalôn ...	6	15	5	990	198	9 15 0		
		Total ...	50	123	57	18,582	326	185 14 8	72 9 4	
								258 7 7		

Detail for the Toungoo division.

81. The following table shows in detail the teak taungyas planted in the Toungoo division:—

Reserve or block.	Situation.	Village.	Trees.	Yas.	Acres.	Number of plants.		Cost.	
						Total.	Per acre.	Total.	Per acre.
								Rs. A. P.	Rs. A. P.
Yenè ...	Near Zibyubin village, north west corner of reserve.	Zibyubin Banbôn.	Teak.	8	18	12,140	674	209 4 0	11 10 0
East Swa ...	Near Shwe Ka village, on Swa stream.	Shwe ka ...	Teak.	8	19½	15,775	809	272 12 0	13 15 10
Bôndaung ...	Near Gaik stream ...	Tabetkwe...	Teak.	3	17	7,230	425	144 0 0	8 7 6
Kabaung ...	At mouth of Thagyo stream.	Gwa To ...	Teak.	1	4	3,300	825	41 0 0	10 4 0
		Total ...	...	20	58½	38,445	657	667 0 0	11 6 5

As these represent the first attempts of all, except one man, to plant teak the result is very good. The cost is slightly high owing to an unnecessarily large quantity of seed having been used, but this is a matter of small importance.

Departmental sowings in dead and flowered bamboo forests.

82. These operations were extended over an estimated area of 725 acres and are reported to be fully as well stocked as the areas treated in previous years.

The total expenditure on these works amounted to Rs. 8,472, or Rs. 11-11-0 per acre. The cost of these operations has increased considerably. In 1881-82

it was Rs. 4-14-6 and last year Rs. 7-13-10. The explanation is that the growth of young bamboo, which has to be cleared and kept down, is more vigorous than it was.

The areas too consist of irregular plots dotted here and there, and of belts of varying breadth running along the ridges, and so are very difficult to estimate with accuracy.

7.—Cutting of Creepers, Weeding, and Thinning.

Weedings in the Prome division.

83. *Prome Division.*—In the Prome division the taungyas of 1881 and 1882, with areas of 102 and 136 acres, were twice weeded at a cost of Rs. 700, or Rs. 2-15-0 per acre.

Weedings in the Tharrawaddy division.

84. *Tharrawaddy Division.*—Weedings were carried out as follows :—

		Acres.	Cost. Rs	A.	P.
Nyanle ...	1881	14	32	2	6
	1882	20	40	8	8
Gwedauksan ...	1881	10	25	15	8
	1882	11	22	4	0
Bawbin ...	1881	28	69	1	0
Kangyi ...	1881	14	33	12	0
	1882	8	6	9	0
Môkka-Minhla ...	1881	131	241	4	0
	1882	123	270	13	6
Môkka-Bilin ...	1881	259	556	4	0
	1882	233	519	11	6
Thônzè Konbilin ...	1881	77	117	8	0
	1882	52	121	1	0
Total ...		975	2,056	14	0

The average cost was Rs. 2-1-9 per acre. The sowings of 1882 in flowered bamboo forests were weeded. In the Bwet reserve Rs. 424, or Rs. 2-13-3 per acre, were expended on 150 acres, while the weeding of 250 acres in the Nyanle reserve cost Rs. 1,022, or Rs. 4-1-7 per acre. The area sown with cutch in the Kyaukkyidaung reserve (150 acres) was gone over at a cost of Rs. 422, or Rs. 2-13-0 per acre.

The growth of the young teak in Bwet and Nyanlè is remarkably good, and the complete success of these sowings renders it very desirable to extend such operations as much as possible even at the increased cost recorded in paragraph 82. In the Kyaukkyidaung reserve the bamboo rat (*Rhizomys castaneus*) has continued its ravages and it is doubtful if many of the young cutch trees will survive another year, but the young, naturally-grown teak have not suffered, and the weeding considerably benefitted them. The older sowings of 1881—300 acres in Bwet and 200 acres in Nyanlè—were also weeded at a cost of Rs. 2-0-1 and Rs. 1-4-0 per acre. The 8-acre plot planted in 1882 near Kywèmakaing was cleared of weeds for Rs. 20, and some of the older plantations in the Môkka-Bilin were cleared of maw, myaukngu, and other soft woods at a cost of Rs. 106.

Weedings in the Rangoon division.

85. *Rangoon Division.*—Weedings at Magayi were limited to little more than the clearing of creepers. The portions gone over together with the cost were as follows :—

Plantation.	Acres.	Cost. Rs	A.	P.	Average cost per acre Rs.	A.	P.
1874 ...	206	47	10	5	0	8	4
1875 ...	150	49	2	3			
1876 ...	302	80	8	0			
1877 ...	273						
1878 ...	38	325	10	9			
1880 ...	149						
1881 ...	15	94	15	0			
1882 ...	16						
Total ..	1,149	597	14	5	0	8	4

The cutting of creepers and clearing of teak was continued at Kyetpyugan, cost Rs. 522, or Re. 0-12-3 per acre. Of this sum Rs 74 were paid in the previous year.

At Dawè Rs. 30 were paid the Karens for the weeding of 30 acres of taungya planted in 1882-83.

Weedings in the Toungoo division.

86. *Toungoo Division.*—The small addition made to the Pyunchaung plantation last year was weeded for Rs. 11.

8.—Experiments and Exotics.

a.—Experiments.

Evergreen fire-traces.

87. The planting-up of fire-traces with evergreens, an experiment tried at Magayi in the Rangoon division and at Yanè and Pyunchaung in the Toungoo division, has not proved successful. It is only by constant restocking and most careful attention to weeding that the plants can be got to establish themselves at all, and then many die out on the high lands during the hot weather and many more are killed by inundation in the rains. The surviving plants grow very slowly and have to be weeded and cleared for a number of years.

In the *Rangoon division* 21,000 plants were put out, and at the end of the dry season only 20,000 of these and the previous year's plantings were alive.

Toungoo Division.—The experiment has been continued in the Pyunchaung reserve and Rs. 144 were expended on planting and weeding. The total cost has been Rs. 900 and the Divisional Officer is of opinion that the results are not proportionate to the cost and that the experiment should be discontinued. In the Yanè reserve failure was due to the plants being eaten down by deer.

Failure of shaw seedlings.

88. The seedlings of shaw (*Sterculia sp.*) have not succeeded, many have died, and those remaining are sickly.

b.—Exotics.

Mahogany.

89. In the Prome division 10 of the 14 trees in the Chaungzauk reserve were killed by some insect which attacked the roots and 3 of those in the Prome plantation died. The 19 plants reported last year as being in the Tharrawaddy forest-garden are thriving. Eleven other plants were raised from 57 seeds and planted out in manured pits. These have grown exceedingly well and in future all valuable plants will be treated in this way. The two plants at Paungdè have not done as well as those at Tharrawaddy. At Kywèmakaing 108 of the 137 plants put out remain. Of the 48 plants reported as alive at Magayi at the close of last year 9 have died. The surviving trees vary from 2½ to 18 feet in height and from 1 inch to 4 inches in girth; they wear a healthy appearance, but after attaining a height of from 5 to 6 feet the top shoot, whose growth is induced by the early showers, gets dried up and withered, hence shortness of bole, branching development, and want of a marked terminal shoot.

Pithecolobium saman.

90. Plants of this species grow very readily and quickly. Several trees have flowered but no seed has been produced, the male flowers withering before the female flowers open.

Ficus elastica.

91. There are now 36 plants and trees growing at Magayi, varying from 3 to 35 feet in height and from 6 inches to 3 feet in girth. In the Tharrawaddy forest garden 20 plants are doing well, and this number would have been considerably added to had not a large number of cuttings failed to strike owing to their being put in a bed the soil of which was waterlogged.

Ceara rubber (Manihot glaziovii)

92. Plants and trees of this species number 96 at Magayi and so far they appear healthy. Twenty-six seedlings were raised from seed from Mergui, and these have been put out at Tharrawaddy. Some of them flowered when only a few months old, and they have so far failed to make any growth approaching that made by plants at Mergui. The experiment of introducing this tree does not promise to be successful in Pegu.

93. The "kyetpaung" rubber plants at Magayi were increased from 57 to 135; they grow very slowly but are perfectly healthy. Seed has been collected and sown with the view of extending and filling up the plantation. The smallness of the creeper and the slowness of its growth make it very doubtful whether rubber can ever be collected in sufficient quantity and at a low enough rate to make a profit. Rubber as collected with a considerable admixture of water is valued at from Rs. 60 to Rs. 70 a maund of 84lbs., and the cost of collection in natural forest amounts to at least from Rs. 1-8-0 to Rs. 2 per lb. Rs. 211 were expended on the plantation.

Chevannesia esculenta.

94. In the vanillery at Magayi there are now 386 plants. During February and March 23 flower clusters appeared, but only 6 pods set, and these were eaten by squirrels. The general appearance of the plants is healthy but not highly so.

Vanilla.

95. The plants remaining in the nursery have been put out but are not growing well. The soil of the forest garden generally is very poor and probably accounts for the weak growth.

Divi divi (Cœsalpina coriaria).

96. The mulberry plants near Kadinngazin in the Chaungzauk reserve are doing well and those in the forest garden are growing fairly.

Morus multicaulis and sp. sp.

97. At Pyunchaung 317 coffee plants survive; they have to be watered twice daily through the hot weather, and their sickly appearance shows that the site is unfavourable. At Thandaung there are 3,554 healthy plants from some few of which 20lbs. of coffee were collected.

Coffee.

98. Tea grows like a weed at Thandaung and the 756 plants have grown into fair bushes.

Tea.

99. The establishment has been reduced to a headman and four coolies, costing Rs. 62 per mensem. The entire plantation, with the exception of a small belt on the north, falls within the limits of the cantonment, and when a Cantonment Committee has been formed and funds provided, the plantation can probably be handed over and treated as the Committee consider best. For the present, beyond reserving a certain area for water-catchment purposes, little has been done. Rules will have to be made for the disposal of building sites both within and outside cantonment limits; very stringent regulations will be necessary to guard against fires which would soon reduce the area no longer covered with high forest to a sea of kaing grass and by extending to the pônzos of the surrounding villages cause great discontent. It is noticeable already, and is to be regretted, that these people have become careless and no longer take such measures to protect their pônzos as they did before the sanitarium was established. The felling of building material, of which there is only a limited supply actually on the spot, unless the beauty of the place is to be considerably spoiled, will have to be prohibited within certain limits.

Cinchona plantation at Thandaung.

Work was confined to maintaining the nurseries and weeding the cinchona, coffee, and tea. Mr. Petley was supplied with 5,000 cinchona seedlings; these he reports have not done well and he has asked for another supply next year. His request can be easily complied with, the nurseries containing—

1,250	Succirubra	Seedlings.
25,000	Caliseya	
1,000	Condaminia	
112	Coffee	

During the year Rs. 1,595 were expended on the Thandaung plantation :—

	Rs.
Pay of overseer and sub-overseer	444
Weeding cinchona	542
Do. tea and coffee	88
Transplanting and watering plants in nurseries	305
Clearing paths	83
Repairs to Pathichaung resthouse	133
Total ...	1,595

Tharrawaddy forest garden.

100. The soil of the garden is wretchedly poor and unfavourable to the growth of trees. During the year a number of manured pits have been prepared, and plants put out in these show a far more vigorous growth, and even plants within 5 or 6 feet of these pits have shot up in a marked manner. The garden contains the following exotics :—

Cycas media	1	
Eucalyptus gompho cephala	2	
Do. citriodora	4	
Do. sp....	5	
Tristania conferta	8	
Pomaderris elliptica	1	
Swetenia mahogani	80	
Ficus elastica	20	
Vanilla	9	
Pithecolobium saman, about	800	
Broussonetia papyrifera	1½	acres.
Morus multicaulis sp.	2	acres.
Cœsalpina coriaria	20,000	
Ceara (*Glaziovii manihot*)	26	
Maclura Aurantiaca	12	

Additions have been made to the number of indigenous species and more will be put out.

The expenditure during the year amounted to—

		Rs.
A VIII *d.*	Labour	1,614
	Manure	140
	Sundries	84
A VII *c.*	Cost of well	274
	Tanks and drains	461
	Roads and bridges	282
	Total ...	2,805

The supply of water from the well has been continuous. A tank 30-feet square at the bottom and 12-feet deep was dug; it filled in the rains and will still contain a large supply of water at the end of the dry season. The old tank was deepened.

9.—Communications and Buildings.

a.—Roads and Bridges.

Magayi and Kinpadi road.

101. The bridge over the Magayi stream was completed at an outlay of Rs. 749. The total cost, including sums disbursed in previous years, of this bridge and 5 smaller ones constructed along the road from Palôn to Kinpadi was Rs. 1,613. The work of metalling the road was not satisfactorily pushed on and little progress was made. Of the sanctioned estimate, Rs. 10,000, although the work has been in hand for three years, only Rs. 6,440 have been expended, and less than 3 miles have been metalled.

	Received from Public Works Department.	Disbursed as per accounts rendered to Public Works Department.		
		On bridging work.	On road-metalling.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1881-82	999 8 8	751 4 8	247 15 0	999 8 8
1882-83	5,000 0 0	112 0 9	2,060 5 0	2,172 5 9
1883-84	441 8 2	749 5 5	2,519 8 0	3,268 13 5
Total ...	6,440 6 5	1,612 10 5	4,827 12 0	6,440 6 5

Bridges and roads at Rangoon timber depôt.

102. At the Rangoon timber depôt the bridge near the officers' quarters was renewed, and the elephant bridge over the Sabo stream was repaired at a cost of Rs. 467. Repairs to revetments near bridges cost Rs. 147.

b.—Removal of Obstructions and Clearing of Streams.

Tharrawaddy division.

103. Floating streams in the Tharrawaddy division were cleared as follows :—

	Rs.
Taungnyo, at a cost of	754
Bawbin	801
Teindaing	75
Minbu	83

and the maintenance of the Bilin booms at Letpadan cost Rs. 348.

Rangoon division.

104. A party of 12 Oudh men was in December sent into the Zamayi under Overseer D'Costa in order to remove small obstructions in Leikwagale stream (Upper Zamayi reserve) tributary to the Thèmè and in the Hngetpyin stream (South Zamayi reserve) tributary to the Zamayi. On completion of that work obstructions were also removed from the Wapyumyaung (South Zamayi reserve) tributary to the Sinzwi, and from the Taung stream near source of the Pyinma stream (unreserved forest). The party returned to Rangoon on the 4th June, having been reduced by 7 men through sickness. The total cost amounted to Rs. 1,149, of which Rs. 327 only were disbursed during the year under review. Exclusive of dynamite and sundries, costing Rs. 357, the amount expended on each stream was—

	Rs.
Hngetpyin	339
Leikwagale	252
Wapyu	69
Pyinma	132

Toungoo division.

105. The Yanè and Wayè streams in the Toungoo division were being cleared at the close of the year.

Excavation of creeks at Rangoon depot.

106. Nos. 1 and 2 creeks at the Rangoon timber depôt were excavated at a cost of Rs. 490.

c.—Buildings.

Office and bungalow at Toungoo.

107. The office and bungalow for the Divisional Officer at Toungoo, at an estimated cost of Rs. 14,043, were still under construction: Rs. 3,043, balance of estimated amount, were paid to the Executive Engineer.

Enlargement of Tharrawaddy office and house.

108. The Tharrawaddy office was enlarged at a cost of Rs. 556, and the Divisional Officer's bungalow was improved by enclosing the verandah with venetians, by boarding in two extra rooms below, and by a flooring of concrete and cement. The cost of this was Rs. 1,969.

Repairs to Prome house and office and Pegu house.

109. Rs. 691 were expended on the Prome house and office, the chief items of which expenditure were painting and laying a new floor in the office. The Pegu bungalow was earth-oiled and repaired for Rs. 86.

Resthouses built.

110. The five resthouses noted as under construction in last year's report were completed and cost as follows :—

Tharrawaddy Division.

	In 1882-83. Rs.	In 1883-84. Rs.		Rs.
Yetho	248	490	=	738
Kyun	2	485	=	487
Myoda	...	569	=	569
Kainggwin	40	453	=	493

Toungoo Division.

	In 1883-84.	Rs.
Minyo	610	610

Repairs.

111. Repairs to resthouses, overseers' quarters, &c., were executed and cost as follows:—

	Rs.
Prome division	84
Tharrawaddy division	441
Rangoon do.	764
Toungoo do.	106
Rangoon timber depôt	1,175
Total ...	2,570

CHAPTER IV.

YIELD AND WORKING.

1.—Departmental Operations.

Total outturn of teak.

112. The outturn of teak timber worked by direct Government agency was 27,533 logs and pieces as against 25,677 in the previous year. Owing to the rainfall being scanty in September and October a large number of logs remained neaped; with an average floating season 10,000 more logs would have come to hand.

Yield of the different divisions.

113. The different divisions yielded as follows:—

Divisions.	Number of logs.	Average cost of extraction.	Sold locally.	Sent to depôt.	Remarks.
		Rs. A. P.			
Prome	2,840	11 4 0*	...	2840	* Average, 635 logs.
Tharrawaddy	7,861	8 0 3	20	7,841	
Rangoon	702†	10 2 6	4	698	† Of these 226 logs were salved and delivered as drift and are again included under drift.
Toungoo	8,063	19 10 0	1,855‡	7,443‡	‡ Include timber included in previous year's outturn.
Shwegyin	522	17 13 10	...	522	
Western	1,172	14 10 8	605	...	
	417	8 8 0	...	417§	§ Bassein depôt.
Total ...	21,577	...	1,984	19,761	
		Refuse Teak.			
Prome	781	1 12 3	616	...	Posts.
Tharrawaddy ...	1,254	5 1 6	...	1,254	
	956	3 8 8	956	...	Delivered at Ôkpo and Paungde; 5 still at Ôkpo.
Rangoon	2,797	11 15 0	32	2,765	
Western	88	1 1 8	88	...	Trees on grant.
	130	6 10 4	31	...	
Total ...	5,956	...	1,723	4,019	
GRAND TOTAL ...	27,533	...	3,707	23,780	

Prome Division.—The 2,840 logs worked from the Prome division were extracted—

	Logs.
From the Bule forests	175
From the Rangoon forests	1,493
From the North Nawin	1,172

The average cost of extraction has been struck on 635 logs only, the number that had been paid for at the close of the year, when some Rs. 29,000 were still due to contractors.

Tharrawaddy Division.—The department employed 44 contractors with 132 elephants, and the outturn, excluding 23 waif logs spread over the different forests, was—

Forests.	Logs.	Average cost per log. Rs. A. P.
Thônzè	1,028	8 2 11
Bilin	289	7 6 1
Môkka	769	8 15 9
Minhla	1,527	7 13 1
Gamôn	366	7 9 11
Bawbin	1,082	8 1 1
Minbu	347	8 6 1
Kangyi	57	6 12 0
Taungnyo	2,124	8 0 9
Taung	272	7 0 0
Total ...	7,861	8 0 3

The average rate paid to contractors is again lower than in the previous year; it is due to a larger proportion of medium and small sized timber being delivered. When working plans have been drawn up for the reserves and girdling is extended to them finer timber will be found. At the close of the year 2,300 logs from the Taungnyo had reached the Myitmaka river and 5,090 logs, chiefly Shwele timber, were lying neaped in the various streams. A heavy flood in the Taungnyo at the beginning of the rains caused a back-water in the Shwele stream, which silted up the lower part of its course and prevented even a single log of timber from coming out. The cutting of a small channel by which to extract this timber was in hand. The refuse timber worked out consisted of short pieces, tops, &c., left behind by contractors: 1,283 pieces were delivered at Ôkpo and Paungdè, of which 322 were sent on to Rangoon by train and 956 disposed of locally. Prices realized were only sufficient to cover cost of extraction and freight by rail to Rangoon, and arrangements were made to float such timber direct: 932 pieces were in this way delivered at the Rangoon depôt at Rs. 3-1-6 per log as against Rs. 7-2-6 for those received by rail.

Rangoon Division.—The yield of the forests in teak timber worked from this division was as follows:—

Pegu range ...	Tèdaw-Sinzwè forests	352 girdled teak.
	Various forests	2,646 refuse.
Paunglin range...	Ganbi	350 girdled teak.
Hlaing range ...	Ôkkan	151 refuse teak.
	Cultivated land	88
	Total ...	3,587

The cost of extraction was considerably lower than in the previous year owing to most of the finest timber being neaped.

Toungoo Division.—The forests of this division yielded through direct working—

Forests.	Logs.	Average cost per log. Rs. A. P.
Kyaukmasin, Minye	1,361	
Daunglangyi, Myohla	1,080	28 2 8
Mohaw	16	
Binbye, Gwethe	... ...	4 9 6
Kemôn, Kanni	228	18 15 6
Saing, Yane, Swa	1,257	12 8 0
Thankyegat	1,906	15 5 7
Kabaung	1,356	12 15 0
Yaukthawa	330	.....
Sittang river	30	1 13 10
Pyu	499	21 10 3*
Total ...	8,068	19 10 0

* The extraction of the 499 logs of dead and windfall timber from the Pyu forests was paid for in timber, the contractor receiving half the number of logs valued at Rs. 10,800.

Shwegyin Division.—The whole of the timber was worked out on the half-profit principle. The Kawleya forests yielded 522 logs, which sold for Rs. 18,652; and of 1,172 logs worked from the Môn and Pada forests the contractor received 605, with a tonnage of 425, and valued at Rs. 17,000.

Western Division.—The 417 teak logs delivered at Bassein were worked from the forests at the source of the Ôkpo or Kanyin stream and paid for at Rs. 12-8-0 per ton.

Woods of other kinds extracted by direct agency.

114. The following timber of other kinds was extracted by direct agency :—

Divisions.	Kanyin.	Thitka.	Pyinma.	Pyingado.	Various furniture woods.	Various.	Pyinma posts.	Pyingado posts.	Cost of extraction.
	Logs	Logs	Logs	Logs	Pieces				Per log. Rs. A. P.
Tharrawaddy ...	252	...	...	...	...	...	...	...	8 14 1
Rangoon	21	...	...	...	...	...	...	...	7 1 7
	...	50	...	...	...	...	...	...	5 14 7
	...	...	...	6,110	...	...	...	...	5 14 8
	...	...	136	...	...	...	...	...	7 8 0
	...	...	...	...	48	...	...	...	5 4 10
Toungoo	...	...	61	...	...	...	...	...	7 12 2
	...	59	...	...	...	...	...	...	10 8 0
Shwegyin	87	...	...	...	...	...	...	...	18 0 0
	...	60	9	...	...	...	...	...	8 1 9
Western	...	...	...	...	...	194	...	...	7 0 0
	...	...	...	...	...	...	78	...	1 4 0
	...	...	...	...	...	...	...	500	6 6 11
Prome	...	...	...	157	...	...	...	...	...
	360	169	206	6,267	48	194	78	500	
	7,002								

115. The Palôn saw-mill continued working for the Department until the 31st May 1883. The following statement, which includes the previous year's transactions, gives a full account of the expenditure incurred and revenue received from the converted timber :—

Working of the saw-mill at Palôn loaned from the railway.

Expenditure.

	Rs. A. P.	Rs. A. P.
1881-82—		
277 pyingado logs	1,814 14 4	1,814 14 4
1882-83—		
706 pyingado logs	4,375 4 0	
Hire of mill from 17th December to 28th February	3,866 5 2	
Frame saws	59 0 0	
		8,300 9 2
1883-84—		
186 rejected pyingado logs	465 0 0	
792 pyingado logs	4,676 0 0	
Hire of mill from 1st March to 31st May	4,656 7 8	
Freight bills of Railway Department ...	2,447 0 0	
Commission to Bengal Stone Company on a sale of 60 broad-gauge sleepers...	27 5 9	
		12,271 13 0
Total ...	...	22,387 4

Revenue.

	Tonnage.	Rs. A. P.	Rs. A. P.
1882-83—			
Rangoon Tramway Company	482·12	14,182 0 0	14,182 0 0
1883-84—			
Rangoon Tramway Company		14,993 8 4	...
Bombay Burma Trading Corporation, Limited ...	187·20	11,220 9 6	...
Executive Engineer, Sittang Railway	19·00	1,140 0 0	...
Bengal Stone Company	4·20	290 0 0	...
Superintendent of Police, Hanthawaddy	4·10	280 11 3	...
Forest Agency, Rangoon	14·12	635 6 6	...
Petty indents from Rangoon	9·22	448 3 0	29,008 6 7
Total ...	719·96	...	43,140 6 7
	Net revenue ...		20,753 2 1

The consumption of timber amounted to 1,961 pyingado logs, or estimated 1,450 tons, and the net profit, or in other words the value of this timber, was Rs. 20,753, or Rs. 10-9-3 per log, Rs. 14-5-0 per ton. The outturn in converted timber was only 50 per cent. and is explained by the numerous defects found in pyingado timber.

Supply of sleepers to Northern Bengal State Railway.

116. Through Messrs. G. Henderson and Co., Directors of the Bengal Stone Company, an agreement was entered into to supply, between the 1st November 1883 and the 30th April 1885, 125,000 narrow-gauge pyingado sleepers, and in order to carry out this undertaking a contract was entered into with a Mr. Rosner by which he agreed to purchase the saw-mill at Palôn and convert from Government timber delivered at the mill 7,000 sleepers besides scantlings per month for 18 months. In addition to this a contract was signed with Kafiludin Jemaludin and Co., the owners of a mill at Shwegyin, to supply on board steamers at Rangoon 3,000 sleepers a month for 12 months. The following statements show the transactions under Mr. Rosner's contract up to the close of the year :—

Expenditure.

	Rs. A. P.	Rs. A. P.
Timber—		
3,748 pyingado logs converted	22,198 0 0	
Cross-cutting 255 logs for broad-gauge sleepers	127 8 0	
		22,325 8 0
Conversion—		
17,631 narrow-gauge sleepers	6,192 14 3	
1,020 broad-gauge sleepers	782 0 0	
4,026 and 41·4 tons scantlings	2,554 4 11	
		9,529 3 2
Railway carriage	.....	3,181 10 9
Unloading and shipping—		
37,786 narrow-gauge sleepers	3,037 10 1	
952 broad-gauge sleepers	198 6 9	
		3,236 0 10
Freight to Calcutta—		
34,192 narrow-gauge	6,838 6 5	
952 broad-gauge	495 11 7	
		7,334 2 0
Unloading and stacking scantlings—		
Sent to Botataung depôt	...	211 13 0
Total ...		45,818 5 9

Revenue.

	Tons.	Rs. A. P.
Bengal Stone Company's acceptance—		
17,631 narrow-gauge sleepers ...	470·1 ...	36,363 15 0
Rangoon Tramway Company ...	26·6 ...	1,326 15 6
Petty sales	2·0 ...	120 0 0
Botataung depôt agency sales ...	4,802 scantlings.	5,416 1 0
Tons ...	498·7	
Scantlings ...	4,802 ...	43,226 15 6

An undisposed of balance of 20,155 narrow-gauge and 952 broad-gauge sleepers was in the hands of Messrs. Henderson and Co.

Of the Shwegyin sleepers 6,811 had been accepted and paid for, and a balance of 5,777, including rejections, was in Calcutta or in transit at the close of the year. The accepted sleepers at the close of the year from shipments to end of February amounted in all to 24,442 and the rejections were as high as 28 per cent. and 22 per cent. It has been represented that a considerable number of fair serviceable sleepers have been rejected, and it is believed the Railway authorities will reconsider the matter. In any case a large majority are serviceable, and as they will not deteriorate by storing there should be little difficulty in disposing of them.

Outstandings against contractors.

117. The outstandings increased from Rs. 97,756 to Rs. 1,17,700, but this increase would not have appeared had the contractors' accounts in the Prome division been settled and some Rs. 28,000 recovered. In the Prome division Rs. 32,800 were outstanding of which Rs. 27,747 were covered by work done, and the balance secured by mortgage of elephants. Outstandings against contractors in the Tharrawaddy division amounted to Rs. 45,000, but Rs. 12,000 of this will be cleared off when the timber now in the Myitmaka river arrives. The outstandings in the Rangoon division have increased owing to the sleeper works; they are secured by sleepers in hand and an engagement to mortgage the Palôn saw-mill whenever called upon. Of Rs. 2,950 outstanding in the contractors' ledger of the Toungoo division, Rs. 314 will have to be disposed of as a bad debt: the balance was covered by timber in transit. The only outstanding in the Shwegyin division was a sum of Rs. 6,111 covered by 6,132 sleepers ready for delivery. The two contractors in the Western division have reduced their liabilities and are still working. A further advance made is covered by the mortgage of elephants. The Agency division shows an outstanding of Rs. 2,400 which was covered by sleepers in transit to Calcutta.

2.—*Removal of Produce by Purchasers.*

(*a*).—*Timber.*

Timber removed by purchasers from reserves.

118. From reserves 4,064 cutch trees were removed by purchasers; 500 in the Chaungzauk reserve sold for Rs. 1,670, and 3,564 trees in the Tharrawaddy reserves fetched Rs. 14,986. Five *in* trees were sold for Rs. 20, and the Executive Engineer removed from the Magayi reserve 104 pyingado posts and 148 tons of scantlings for which he paid Rs. 875. In the previous year 11,446 trees were disposed of.

Teak timber removed by purchasers from unreserved forests.

119. From unreserved forests 672 tons of teak timber were removed by purchasers on payment of Rs. 10,496. This timber was extracted from the different divisions as follows :—

Division.	Tons.	Price.
		Rs.
Prome	261	3,165
Tharrawaddy	306	3,088
Rangoon	5	53
Toungoo	67	3,181
Shwegyin	33	1,014
Total ...	672	10,496

Owing to the difficulties experienced in obtaining convictions against persons who illicitly felled teak in unreserved forests, it was considered expedient to restrict the sales of standing teak in the Tharrawaddy division.

Reserved trees.

120. Under licenses for reserved trees 2,676 tons of timber exclusive of teak were removed which, estimating the average tree at 37 cubic feet, represents 3,616 trees. From unreserved trees were extracted under licenses for trade purposes 72,090 logs (includes dugyi, hlwa, and yathit), and 136,940 posts and poles. The

following detailed statement gives the tonnage of each kind of reserved wood extracted :—

Divisions.	Reserved trees.							Remarks.
	Pyinma.	Thingan.	Kanyin.	Thitkado.	Thitka.	Kaungmhu.		
	Tons	Tons	Tons	Tons	Tons	Tons	Rs.	
Prome	...	...	...	...	...	...	*Nil.*	
Tharrawaddy ...	14	1	173	...	...	...	1,278	
Rangoon	12	...	125	...	...	...	1,084	
Toungoo	69*	65	...	...	...	...	1,183	* Exclusive of 48 tons sold to Railway Department for Rs. 420.
Shwegyin	72	12	1,895	4	21	½	16,077	
Western	29	...	132	2	1	...	Not reported	
Total ...	196	78	2,325	6	22	½		

Trade in reserved woods limited to a few divisions.

121. It is worthy of notice that none of the reserved trees are found in the Prome and Thayetmyo districts in any quantity, and also that kanyin is much morel argely extracted from other divisions now that it has become scarce in the unreserved forests of the Rangoon division: it realizes Rs. 18 per ton in Pegu and Rangoon.

Unreserved trees.

122. Unreserved woods were extracted under licenses from the different divisions as per detailed statement :—

Divisions.	Dugyis and Hlwazas.	Yathitts.	Small pieces.	Poles.	Amount realized.
	No.	No.	No.	No.	Rs.
Prome	9,318	10,856	5,191	35,890	22,704*
Tharrawaddy	5,276	3,788	1,599	239†	12,637
Rangoon	7,706	15,394	5,101	20,000	26,091
Toungoo	4,644‡	2,390	3,024	3,515	8,606
Shwegyin	3,671	893	4,128	100	2,813
Western	3,846	4 413	5,738	52,415	Not reported.
Total ...	34,456	37,734	24,781	112,159	72,851

Licenses were issued free of charge for 2,890,400 billets of firewood in the Rangoon division and for 440,000 in the Western division.

(*b*).—*Minor Forest Produce.*

From reserves.

123. On account of minor forest produce sold from reserves the following sums, aggregating Rs. 5,829, were realized :—

	Prome division.	Tharrawaddy division.	Rangoon division.	Toungoo division.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.
Bamboos	7	2,761	1,656	98	4,522
Grazing	...	109	56	...	165
Thatching grass and leaves	...	231	102	...	333
Shaw fibre	16	182	107	8	313
Cigar leaves	...	200	...	...	200
Canes, &c.	...	...	28	50	78
Wood-oil	...	210	...	...	210
Firewood	...	1	12	...	13
Honey	...	10	...	33	43
Total ...	23	3,704	1,961	189	5,877

* Does not include the Rs. 276 for timber for which license was not issued extracted by Bombay Burma Trading Corporation, Limited.

† Scantlings.

‡ Does not include 1,010 sold to Public Works Department and Railway for Rs. 1,064.

From unreserved forests.

124. Under this heading Rs. 85,337 were derived from unreserved forests :—

	Prome.	Tharrawaddy.	Rangoon.	Toungoo.	Shwegyin.	Western.	Total.
Cutch licenses at Rs. 20 per cauldron ...	41,920	38,300	...	880	...	2,005*	83,105
Charcoal licenses ...	83	192	404	82	259	102	1,072
Wood-oil	90	154	48	220	392	8	912
In-oil	...	...	...	2	...	...	2
Thitsi	...	...	...	240	...	...	240
Resin	6	...	...	...	...	...	6
Total ...	42,099	38,646	452	1,374	651	2,115	85 337

Number of cutch licenses issued.

125. There was a slight decrease compared with the previous year in the number of cutch licenses issued in the Prome division, but against this the Tharrawaddy division shows a considerable increase. In 1882-83 Rs. 70,110 were derived from this source, and in the year under review the revenue increased to Rs. 83,105. Boilers have now taken to cooking dead trees of which many remain in the pônzos.

Revenue on minor forest produce collected by Agency.

126. The Agency division shows Rs. 4,146 as derived from timber and produce removed by purchasers including Rs. 3,347 collected by the Deputy Commissioner, Akyab.

3.—*Free Grants.*

Licenses for reserved trees free.

127. During the year free grants were issued under 85 licenses for 294 tons of teak (refuse nathat awlè, or paddyfield teak), 302½ tons of pyinma, 3 tons of thingan, and 1½ tons of thitgado :—

	Number of licenses.	Timber in tons.			
		Teak.	Pyinma.	Thingan.	Thitkado.
		By the Commissioner of Pegu.—*Nil.* By the Commissioner of Irrawaddy.			
District—					
Henzada	3	9	8	...	...
Bassein	4	5	16	...	1½
Thayetmyo	2	11	...	...	...
Total ...	9	25	19	...	1½
		By the Commissioner of Tenasserim.			
Shwegyin	9	...	63†	...	...
		By the Conservator of Forests.			
Divisions—					
Prome	4	38	...	...	...
Tharrawaddy	34	189	61	...	...
Rangoon	4	...	21	...	...
Toungoo	16	23	108½	2	...
Shwegyin	8	16	30	1	...
Western	1	3	...	...	...
Total ...	67	269	220½	3	...
Grand Total ...	85	294	302½	3	1½

4.—*Summary of Yield.*

Summary of yield for circle.

128. The yield of the forests of the Pegu circle was, division by division, as follows :—

* Includes some extra sums levied as fines. | † 195 trees.

Yield of Government Forests.

Division.	Extracted.	Teak.		Reserved trees extracted.	Unreserved trees extracted.	Sleepers, teak.	Scantlings, other kinds.	Cutch trees.	Shaw fibre.	Bamboos.	Canes.	Charcoal.	Wood and other oils.	Thatch.	Sala leaves.	Honey.	Small pieces and posts.	Poles.
		Logs and pieces.	Tons	Logs	Logs		Tons	No.	Viss	No.	No.	Bkts.	Viss	Bdls.	Viss	Viss	No.	No.
THARRAWADDY	By Government agency	9,095	8,368	252	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	„ purchasers	976	897	254	9,064	...	...	134,000	Bdls. 18,618	1,100,127	...	19,200	1,428	12,590	2,505,000	25	1,599	239
	„ trade permits	440	306	...	...													
	„ free do.	...	189	82	...	...	...	...	...	...	...	...	...	...	...	...	...	...
RANGOON	By Government agency	3,463	3,053	207	6,158	...	...	...	...	...	...	...	...	...	...	...	...	...
	„ purchasers	124	154	185	23,100	...	...	...	10,700	658,300	Carts 2	...	144	Carts 24	Carts 2	...	5,101	20,000
	„ trade permits	...	5															
	„ free do.	...	...	28	...	...	...	...	...	...	...	...	...	...	...	...	...	...
PROME	By Government agency	2,955	2,718	...	157	...	...	...	...	...	...	...	...	...	...	...	...	...
	„ purchasers	616	560	...	20,169	...	...	500	...	2,700	...	1,160	30	...	...	...	5,191	35,890
	„ trade permits							94,320										
	„ free do.	...	49	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOUNGOO	By Government agency	8,063	7,417	120	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	„ purchasers	92	67	246	8,044	...	...	6,200	8	19,995	500	15,000	3,000	...	...	80	3,024	3,515
	„ trade permits																	
	„ free do.	...	23	150	...	...	...	...	...	...	...	...	...	...	...	...	...	...
WESTERN	By Government agency	516	248	78	772	...	...	...	...	...	...	...	...	...	...	...	...	...
	„ purchasers	31	25	222	8,259	...	...	60,780	...	...	...	10,200	...	...	...	...	5,738	52,415
	„ trade permits																	
	„ free do.	19	17	26	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SHWEGYIN	By Government agency	1,069	1,001	156	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	„ purchasers	605	460	2,709	4,564	...	...	...	...	...	...	...	...	...	...	...	4,128	100
	„ trade permits		33															
	„ free do.	...	16	127	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total	28,084	25,606	4,842	80,287	...	...	295,800	29,326	1,781,122	...	45,560	4,602	...	...	105	24,781	112,159

and the total yield, according as it was removed by Government agency by purchasers or under free licenses, was as shown below:—

Extracted.	Teak.			Reserved trees.			Unreserved trees.			Small timber.									
	Logs.	Scantlings.	Tons.	Logs.	Scantlings.	Tons.	Logs.	Scantlings.	Tons.	Poles.	Posts and small pieces.	Cutch.	Shaw fibre.	Bamboos.	Canes.	Charcoal.	Wood and other oils.	Honey.	Remarks.
By Government agency ...	25,181	...	22,805	813	...	569	7,087	...	4,960	...	...	...	...	...	...	...	...	...	
By purchasers ...	2,352	...	2,096	3,616	...	2,676	73,200	...	36,600	112,159	24,781	195,280	29,318	1,758,427	500	45,560	1,572	25	
By trade permits ...	532	...	411									100,520	8	22,695	2 carts		3,030	80	
By free permits ...	19*	...	294	413	...	307	...	...	...	...	...	...	...	...	...	...	...	...	
Total ...	28,084	...	25,606	4,842	...	3,552	80,287	...	41,560	112,159	24,781	295,800	29,326	1,781,122	...	45,560	4,602	105	

* Grants being made chiefly in tons, precise number of logs unknown.

5.—*Drift Operations.*

General.

129. The year opened with 1,411 drift teak logs on hand, and during the year 6,795 were collected, making a total of 8,206 logs. Of this number 5,253 were made over to claimants on payment of salvage dues, 1,799 were sold in addition to 23 waif logs received from Tharrawaddy and disposed of as contractor's timber, 166 went adrift from the Toungoo depôt, 73 were lost in transit to the Rangoon depôt, 46 were handed over to a contractor in payment for collection of 101 logs, 90 were transferred to other woods on taking stock at Myitkyo, and 6 were used departmentally, leaving a balance of 750 on hand at the close of the year. The opening balance of other woods was 678, and 483 were collected and 90 were received by transfer from teak returns, making a total of 1,251 logs; 603 were sold, 7 were claimed, and a balance of 514 was on hand; 127 were in transit or lost; only 350 of 453 despatched from Myitkyo having reached the Rangoon depôt. The expenditure on account of drift amounted to Rs. 21,401 against Rs. 19,530 in 1882-83, while the revenue derived from this source was Rs. 96,616, or Rs. 45,068 more than in the previous year, owing to the disposal of the accumulations of unclaimed and unmarked logs at Myitkyo. These were brought to Rangoon and sold well.

Detail of drift operations.

130. Of the total number of logs collected, 7,278, the Irrawaddy river supplied 1,265, the Sittang river 4,796, and the Rangoon and Pegu rivers 1,217. In the *Prome Division* 956 teak logs and 1 other log were collected, 902 were delivered to claimants, 17 were sold, 1 broke adrift, and 1 was used; the closing balance was 35 teak and 1 other log. Twenty-three waif logs from Tharrawaddy reached the depôt in a batch of contractors' timber and were disposed of as such. In the *Rangoon Division* 282 teak logs and 128 logs of other kinds were collected, and all, except 1 teak log sold, were sent to the Rangoon depôt for disposal by the Agency Officer. Above *Toungoo* 2,601 teak logs and other 2 logs were collected; 1,115 were claimed by the Bombay Burma Corporation, 1,269 logs belonged to contractors, and, excepting 165 which went adrift, the balance were unmarked logs. In the *Shwegyin Division* 1,914 teak logs and 97 logs of other kinds were collected: of these 1,422 teak and 1 other log were made over to claimants; 453 teak logs and 453 other logs were despatched to Rangoon In the *Western division* 308 teak logs were collected; 58 were made over to claimants and 103 were despatched to the Rangoon depôt, and 290 were sold. The *Rangoon Agency Division* collected 617 river drift teak logs and 117 sea drift: of the former 325 were made over to claimants and 147 sold: of the latter claimants received 37 and 12 were sold. A balance of 213 logs was undisposed of. Seventy-three logs of other kinds were collected, and 764 teak logs received from other divisions were disposed of as follows :—

Rangoon division	...	... 146 sold. 115 made over to claimants. 4 balance on hand.
Shwegyin division	...	... 397 sold.
Western division	...	... 97 sold. 5 delivered to claimants.

Five hundred logs of other kinds were also disposed of on account of—

Rangoon division	...	... 2 delivered to claimants. 138 sold. 10 balance.
Shwegyin division	...	... 350 sold.

One hundred drift teak logs were lost in transit to the Rangoon depôt.

6.—*Girdling.*

Statement of trees girdled.

131. In all 16,305 teak trees were girdled: of these 9,605 are in unreserved forests and 6,700 inside reserves. Trees of other kinds, pyinma, padauk, thitsi, and kanyin to the number of 2,868 were killed. A detailed statement of the girdlings is given in Appendix D of which the following table is a summary:—

	Unreserved forests.					Reserves.
	Teak.	Pyinma.	Padauk.	Kanyin.	Thitsie.	
Prome Division—						
Myedè range	1,000	...	...	...	...	
Nawin range	1,000	...	...	...	...	
Tharrawaddy Division—						
Shwele forests ...	4,180	...	...	...	...	
Minbu forests ...	520	...	...	...	...	
Môkka reserve ...	...	...	...	...	...	200
Rangoon Division—						
Pegu range	800	1,000	...	...	...	
Toungoo Division—						
Wayè forests	1,000	...	...	...	...	
Swa forests	1,000	...	...	...	...	
Yaukthwa	...	968	100	...	...	
Saing reserve... ...	...	...	...	...	...	6,500
Shwegyin division ...	...	500	...	200*.	100*	* Girdled under previous year's sanction.
Western division ...	105	Illicitly girdled by a contractor.				
Total ...	9,605	2,468	100	200	100	6,700

Add within reserves ...	6,700	Kanyin ...	200
		Padauk ...	100
Total teak ...	16,305	Pyinma ...	2,468
		Total other kinds ...	2,868

Sanctioned proposals and trees actually girdled.

132. Sanction was obtained to the girdling of 16,500 teak trees, or 9,800 in unreserved and 6,700 in reserved forests. The trees proposed for girdling within reserves (excepting the usual 200 in the Môkka reserve) were all in the Saing reserve of the Toungoo division. The proposals however contemplated girdling being limited to that portion of the reserve drained by the Minye stream which flows into Upper Burma; and in order to obtain the full number of trees sanctioned (6,500) while still girdling according to the instructions laid down for reserves, probationer Maung Shwe Gôn found it necessary to cross the watershed and kill trees on tributaries of the Saing itself. The result was that 3,381 trees were girdled in a part of the reserve from which the Saing stream, wholly in British territory, is the export route. As the trees were girdled with due regard to the rules for girdling within reserves, and the forest is particularly rich in mature timber, no harm has been done. The trees of other kinds girdled were fewer than the number sanctioned by 132.

Disposals and Sale Depôts.

Local sales.

133. In the Tharrawaddy division two teak logs from the Minbu and 18 from the Thônzè forests were sold for Rs. 1,382; 785 refuse teak pieces sold at Paungdè for Rs. 4,318, and 156 similar pieces realized Rs. 794 at Ôkpo. Five refuse logs from the Bilin forests sold for Rs. 76. Confiscated pyinma and one kanyin brought in Rs. 98. The local disposals from the Rangoon division consisted of converted pyingado and have been dealt with under departmental timber operations. From the Toungoo division the following timber was sold at Toungoo :—

	Rs.
252 teak logs, or 12,290 cubic feet, were sold to R. S. V. Railway for ...	16,043
384 teak logs, or 9,216 cubic feet, were sold to other purchasers for ...	5,623
2 pyinma logs, or 67 cubic feet, were sold to Executive Engineer for ...	27
47 pyinma logs, or 1,959 cubic feet, were sold to other purchasers for ...	691
12 kanyin logs, or 647 cubic feet, were sold to other purchasers for ...	259
2 other logs, or 80 cubic feet, were sold to Executive Engineer for ...	16
98 unmarked drift logs, or 2,802 cubic feet, were sold to various purchasers for	1,425
At Shwegyin—	
489 teak logs, or 20,214 cubic feet, were sold to various purchasers for ...	22,760
Total ...	46,844

In the Shwegyin division from the 27,000 sleepers on hand the following were made over to the Rangoon and Sittang Valley Railway:—

Pyingado	13,868
Pyinma	2,500
Teak	3,000
Taukkyan	1,500
Total ...	20,868

leaving a balance of 6,132: the sum of Rs. 33,911 was received in payment. In the Western division 31 waif teak were locally disposed of for Rs. 624.

Bassein depôt.

134. The 417 teak logs worked out by contractors were disposed of for Rs. 14,570, or at the rate of Rs. 51-4-0 per ton. The balance of 897 logs of other woods on hand at the close of 1882-83 was all disposed of as well as 175 logs and 500 telegraph posts, and the closing balance was 19 logs and 78 small pyinma posts. Five hundred pyingado posts were shipped from Bassein to the Director-General of Telegraphs, Calcutta.

Rangoon Agency and Depôt.

Balance of timber at Rangoon depôt, 1st April 1883.

135. The balance of timber in hand on 1st April 1883 was—

Teak.

Logs.		Crooks.	Sleepers.	Tons.
I class.	*II class.*			
1,648	13,439	...	65	14,668

Woods of other Kinds.

Logs.	Sleepers.	Tons.
72	...	63

Arrival of timber.

136. The arrivals of timber during the year as exhibited in Form 60 are—

		Teak.	Woods.	Total.
Tharrawaddy		9,050	252	9,302
Rangoon		3,284	5,033*	8,317
Prome		2,840	...	2,840
Toungoo		7,182	347†	7,529
Shwegyin		524	69	593
Agency	Sleepers ...	...	6,811	6,811
	Scantlings ...	...	187	187
	Padauk log-ends ...	...	11	11
Total ...		22,880	12,710	35,590
Drift and confiscated timber. Rangoon		265	150	415
Shwegyin		397	350	747
Agency		734	73	807
Western		102	1	103
Total		1,498	574	2,072
GRAND TOTAL		24,378	13,284	37,662

Fewer teak logs were received than despatched from the different divisions by 508, explained as lost in transit but recovered for the most part as drift.

* This includes 4,802 pyingado scantlings sent in from Teikkyi to the Botataung depôt.

† This includes 122 pyingado posts shipped to Calcutta last year for the Director-General of Telegraphs.

Teak.

Logs.		Crooks.	Sleepers.	Tons.
I class.	*II class.*			
3,047	21,331	...	...	22,454

Woods of other Kinds.

Logs.	Sleepers.	Telegraph posts.	Scantlings.	Tons.
1,351	6,811	122	5,000	1,559

Disposals from Rangoon depôt.

137. The number of logs, telegraph posts, sleepers, and scantlings disposed of during the year, and sums realized thereon as exhibited in Form 61, are—

	No.	Rs	A.	P.
Auction sales	19,852	10,59,464	0	0
Indent sales	2,417	2,21,480	6	4
Telegraph posts	122	459	1	0
Sleepers	6,819	14,055	11	0
Scantlings	4,989	5,802	0	1
Padauk log-ends	11	38	8	0
Drift timber	1,882	67,761	0	0
Drift to claimants	513	2,757	8	5
Total ...	36,605	13,71,768	2	10

giving an average of Rs. 57-8-3 per log, or Rs. 59-14-11 per ton, exclusive of sleepers, telegraph posts, scantlings, and drift timber. Comparing these figures with those of the previous years, it will be observed that there has been a slight rise in prices.

Teak.

Logs.		Crooks.	Sleepers.	Tons.
I class.	*II class.*			
2,967	20,764	...	8	22,640

Woods of other Kinds.

Logs.	Sleepers.	Telegraph posts.	Scantlings.	Tons.
933	6,811	122	5,000	1,168

Disposals on account of different divisions.

138. The following table shows the amount and kind of timber, &c., sold on account of the different divisions :—

Divisions.	Description of timber.	Number of pieces.	Amount.
			Rs. A. P.
Tharrawaddy ...	Teak	11,495	6,38,163 7 5
	Woods of other kinds	252	3,276 0 0
	Total ...	11,747	6,41,439 7 5
Rangoon ...	Teak	1,224	72,080 8 3
	Woods of other kinds	73	1,489 7 1
	Ditto, scantlings ...	4,802	5,416 1 0
	Teak drift	269	6,321 8 0
	Drift woods of other kinds	121	1,647 8 0
	Confiscated jungle woods	12	264 0 0
	Total ...	6,501	87,219 0 4
Prome	Teak	2,922	2,14,914 5 8
Toungoo	Teak	5,691	3,29,440 10 5
	Woods of other kinds	90	2,877 15 6
	Pyingado telegraph posts	122	459 1 0
	Total ...	5,903	3,32,777 10 11
Shwegyin ...	Teak	522	18,652 0 0
	Teak drift	859	39,433 0 0
	Drift woods of other kinds	350	3,914 0 0
	Total ...	1,731	61,999 0 0
Western	Teak drift	102	5,263 11 0
	Drift woods of other kinds	1	5 0 0
	Total ...	103	5,268 11 0
Agency Office ...	Sleepers { Teak	8	8 0 0
	Sleepers { Woods of other kinds ...	6,811	14,047 11 0
	Scantlings, woods of other kinds ...	187	385 15 1
	Padauk log-ends	11	38 8 0
	Teak drift	584	10,619 9 5
	Drift woods of other kinds	97	3,050 4 0
	Total ...	7,098	28,149 15 6
	GRAND TOTAL ...	36,605	18,71,768 2 10

Balance at Rangoon depôt on 1st April 1884.

139. The balance of timber in hand at the Government timber depôt at the close of the official year was—

Teak.

Logs.		Crooks.	Sleepers.	Tons.
I class.	*II class.*			
1,728	14,006	...	57	14,482

Woods of other Kinds.

Logs.	Sleepers.	Scantlings.	Tons.
490	...	...	454

valued at Rs. 32-7-3 per log all round, or a total of Rs. 5,28,233-8-0 as per classified list of timber in hand on 31st March 1884. The valuation is based somewhat lower than in the past year to meet the present state of the market.

Balance on account of each division.

140. The following table shows the amount of timber in hand on account of the several divisions at the close of the year :—

Divisions.	Teak logs.	Logs, woods of other kinds	Teak sleepers.	Drift timber. Teak logs.	Drift timber. Logs, woods of other kinds.	Total.
Tharrawaddy	7,602	...	...	...	...	7,602
Rangoon	2,730	194	...	4	10	2,938
Prome	1,714	...	...	...	...	1,714
Toungoo	3,464	168	...	...	...	3,632
Shwegyin	2	69	...	...	...	71
Agency	...	...	57	214	48	319
Total ...	15,512	431	57	218	58	16,276

CHAPTER V.

Financial Results.

Comparison with previous years.

141. The receipts of the year amounted to Rs. 18,51,228 and the expenditure was Rs. 8,03,952, comparing most favourably with previous years :—

	Receipts. Rs.	Expenditure. Rs.	Surplus. Rs.
1880-81...	8,66,552	4,41,977	4,24,575
1881-82...	13,29,842	7,59,542	5,70,300
1882-83...	16,26,331	8,38,233	7,88,098
1883-84...	18,51,228	8,03,952	10,47,276

The gross revenue shows an increase of Rs. 2,24,897 and the net revenue of Rs. 2,59,178 over the figures of the previous year. The expenditure was Rs. 34,281 less than in the previous year, but would have been about the same had it been possible to settle within the year contractors' accounts in the Prome division.

142. The following table gives the distribution of revenue and expenditure over the different divisions :—

Divisions.	Revenue. Locally collected.	Revenue. Collected by agency.	Revenue. Total.	Expenditure.	Surplus.	Deficit.
	Rs.	Rs.	Rs.	Rs.	Rs.	
Prome	75,813	2,14,914	2,90,727	69,582	2,21,145	
Tharrawaddy	83,060	6,41,441	7,24,501	2,06,511	5,17,990	
Rangoon	1,04,645	87,218	1,91,863	1,87,884	3,979	
Toungoo	62,964	3,32,778	3,95,742	2,35,736	1,60,006	
Shwegyin	66,250	61,999	1,28,249	50,603	77,646	
Western	59,812	5,269	65,081	35,540	29,541	
Agency	...	55,065	55,065	18,096	36,969	
Total ...	4,52,544	13,98,684	18,51,228	8,03,952	10,47,276	

143. The summary of financial results for the circle, Form (57), compares as follows with the two previous years :—

	Receipts.			Charges.			Surplus or deficit.					
	1881-82.	1882-83.	1883-84.	1881-82.	1882-83.	1883-84.	1881-82.		1882-83.		1883-84.	
							Surplus.	Deficit.	Surplus.	Deficit.	Surplus.	Deficit.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Departmental timber operations ...	11,76,052	13,86,079	15,95,334	6,40,645	6,57,298	6,34,089	5,35,407	...	7,28,781	...	9,61,245	...
II.—Other revenue ...	1,53,790	2,40,252	2,55,894	39,604	67,565	60,670	1,14,186	...	1,72,687	...	1,95,224	...
III.—Formation and improvements ...	...	...	...	79,293	1,13,370	1,09,193	...	79,293	...	1,13,370	...	1,09,193
Total ...	13,29,842	16,26,331	18,51,228	7,59,542	8,38,233	8,03,952	6,49,593	79,293	9,01,468	1,13,370	11,56,469	1,09,193

REVENUE.

Timber extracted by direct agency.

144I. The revenue under I, derived entirely from timber extracted by Government agency, exceeded that of the previous year by Rs. 1,56,373 owing to a larger number of teak logs being disposed of at the Rangoon depôt. The Rangoon division realized Rs. 40,925 more than in the previous year chiefly derived from pyingado sleepers and scantlings, while the Toungoo and Shwegyin divisions show a considerable decrease under this head owing to the supply of sleepers to the Sittang Valley Railway being completed in the previous year.

Timber and produce extracted by consumers.

145II*a*. The revenue from timber removed by purchasers is nearly Rs. 12,000 more than in the previous year. In the Prome and Tharrawaddy divisions there was a decrease owing to fewer cutch trees being sold ; in the latter Division, too, fewer paddyfield teak trees were worked out. In the Rangoon division a decrease of Rs. 3,309 is accounted for by pyingado being now an unreserved tree. The increased revenue was on account of unreserved woods from the Western and Shwegyin divisions, where Rs. 21,977 and Rs. 24,903 were realized as against Rs. 8,458 and Rs. 7,036 in the previous year, almost entirely from trees of the unreserved kinds.

II*e*. *Other minor produce.*—Under this head Rs. 10,886 more than in the previous year chiefly on account of a larger number of cutch licenses issued in the Tharrawaddy division.

Drift operations.

146III. *Confiscated drift and waif wood.* Rs. 96,616 were received as against Rs. 45,068 in the previous year. The increase is due to 1,814 drift teak logs being disposed of by the Agency division instead of 879 as in the previous year. The increase under V, Miscellaneous, is accounted for by (*a*) the forest offences compounded, (*c*) the registration fees on hammer marks.

EXPENDITURE.

Expenditure on timber operations.

147AI*a*. The expenditure under AI*a*, timber removed by Government agency, was Rs. 35,942 less than in the previous year, but a considerable amount of timber unavoidably remained unpaid for at the close of the year, or the previous year's figures would have been exceeded.

Timber removed by purchasers.

AII. There was an increase of Rs. 829 under AII, an expenditure necessitated in order to provide for the collection of the increasing revenue under the corresponding head.

Drift.

148AIII. The increase of Rs. 1,871 in the cost of drift operations was caused by more logs being collected.

Live and dead stock.

149AVI. *Live stock, stores, &c.*—(*a*) Rs. 7,370 represents the cost of two dragging and three baggage elephants ; (*b*) feed and keep of animals cost Rs. 2,213 more than in the previous year: the excess is due to expenditure on account of gear and iron saddles

obtained from India and charged to this head; (*c*) stores cost Rs. 4,828 less than in the previous year.

Communications and buildings.

150AVII (*b*). The expenditure under this head was Rs. 12,695, the main items of which were Rs. 3,043, balance due on account of office and officers' quarters at Toungoo, and Rs. 2,669 expended on improvements to the office and officers' house at Tharrawaddy.

Demarcation and improvement.

151AVIII. *Demarcation, improvement &c.*—Under this head Rs. 51,107 were expended as against Rs. 48,171 in 1882-83 and Rs. 41,506 in 1881-82. (*a*) Demarcation cost Rs. 3,579 less than in the previous year: the saving is explained by a Forest Settlement Officer being employed only for short broken periods; (*b*) surveys and working plans cost Rs. 5,559, Rs. 4,309 representing cost of working plans establishment and coolies; (*c*) plantations cost Rs. 6,875 more than in the previous year. This increase is fully explained by the larger area stocked with an increased average number of plants, the entire excess being paid in the Tharrawaddy division; (*d*) the charges for fire-protection were less than in the previous year and only a few hundred rupees in excess of those of 1881-82; (*e*) other works cost Rs. 401.

Miscellaneous.

152AIX. Miscellaneous charges amounted to Rs. 3,638 and call for no remark.

Salaries.

153BI*b*. The salaries of superior officers amounted to Rs. 66,559 as against Rs. 52,975 in 1882-83 and Rs. 47,668 in 1881-82. The increase is consequent on the introduction of the new scale in September 1882: (*c*) and (*d*), salaries of subordinate forest depôt and office establishments, show a slight increase.

Travelling allowances, &c.

154BII. The travelling allowances of superior officers amounted to Rs. 19,181 in 1881-82, Rs. 17,745 in 1882-83, and Rs. 16,796 in the year under review, whilst that of subordinates has increased from Rs. 2,176 in 1881-82 to Rs. 3,533 in 1882-83 and Rs. 8,457 in 1883-84. The provisions of the new Travelling Allowance Code are accountable for these differences.

BIII. *Contingencies.*—The charges under this head show no marked variations.

CHAPTER VI.

GENERAL.

Timber market.

155. The prices obtained for teak were at the commencement of the year under review even higher than in the previous year and small timber, including pieces, sold for nearly the same rate ton for ton as unselected 1st class. Towards the close of the year the market fell and consequently the averages struck for the year are only slightly higher than in 1882-83. The demand for woods of other kinds, excepting pyingado for sleepers and scantlings, shows no marked increase. Appendix M gives a list of woods reserved and unreserved and other than teak passed at the Alôn and Pazundaung stations.

Imports from Upper Burma.

156. During the year the following timber was imported by the Irrawaddy river from beyond the frontier:—

	Logs.	Pieces.	Planks.	Posts and yathits.	Boat-pieces.	Wheel-pieces.	Oar-pieces.	Total.
Teak	15,214	3,768	2,809	...	45	22,458	1,318	45,612
Padauk	...	2,851	...	...	...	...	...	2,851
In	260	2	2,770	...	...	...	...	3,032
Pyingado	...	...	...	2,233	...	...	...	2,233
Other woods	298	...	380	...	...	...	...	678
Total ...	15,772	6,621	5,959	2,233	45	22,458	1,318	54,406

The imports by the Sittang river numbered 32,621 teak logs.

Property marks and passes.

157. The number of hammer-marks registered has not been given by all Divisional Officers nor has the revenue from fees on passes issued been stated.

Elephants.

158. At the commencement of the year 11 dragging elephants and 26 baggage animals, besides one calf, were attached to the different divisions of the circle. During the year there were 6 deaths and 5 animals were purchased, leaving a balance of 36 elephants and 1 calf. The average monthly cost per animal was Rs. 38-15-4. Six deaths were reported amongst contractors' elephants in Tharrawaddy, where the epidemic noticed in the previous report ceased after May.

Calcutta Exhibition.

159. A collection of fibres, gums, oils, resins, &c., made chiefly by Mr. Oliver was sent to the Calcutta Exhibition.

Edinburgh Exhibition.

160. Owing to the very short notice received of requirements for the Edinburgh Exhibition only freshly cut specimens could be procured, and doubtless the woods will have warped and split considerably. Sections of 8 of our principal timber trees as well as sections of young teak from plantations were sent. Planks of teak, pyinma, thitto, thingan, and sha, and sleepers of pyingado, pyinma, and thingan were forwarded. Specimens of 7 kinds of bamboos and 6 different canes were sent. Other exhibits, such as das, elephant gear, models of Karen tè (house) and raft, baskets, mats, cutch, caoutchouc, barks and fibres, were collected and despatched. Some 15 pieces of wood-carving, besides a valuable gong-stand kindly lent by F. C. Kennedy, Esq., Manager of the Irrawaddy Flotilla Company, and photographs of elephants at work, rafts in transit, &c., were also contributed.

Seeds supplied.

161. In all 145 baskets of teak seeds were supplied to other provinces, namely, 96 to the Divisional Officer, Chittagong, 40 to the Deputy Director, Forest School, and 9 to the Conservator of Forests, Northern Circle, Madras. A few pounds of bamboo seeds were sent to the Conservator, Southern Circle, Madras, and the same officer was supplied with 2,500 pods of *Chevannesia esculenta*: 2,100 pods of *Chevannesia* were despatched to the Superintendent, Botanical Gardens, Peradinya, Ceylon. Two bags of pyinma seed were forwarded to the Superintendent of the Botanical Gardens, Singapore. A basket of the betelnut palm seeds was supplied to the Australian Government.

Steam tree-feller.

161A. It was not found practicable to carry out any further trial with the steam tree-feller, no officer being available to superintend the work.

Gazetted officers.

162. No addition was made to the staff of superior officers. Gazetted officers without exception gave satisfaction. Messrs. Oliver and Popert, who both suffered very much from fever, deserve special notice for the thorough way in which they carried on their work in spite of sickness. Mr. Carter was very successful in his management and working of the Tharrawaddy division and merits commendation for the progress made in planting. Mr. Weston had several attacks of fever, one of which was very severe.

Apprentices.

163. Three apprentices returned from the forest school, Mr. Charles Ingram with a ranger's certificate and Maung Tun and Maung Pe without certificates. Mr. Ingram was appointed to fill a vacancy in the 3rd grade and the other two were placed in the 6th grade of rangers.

Subordinate forest and depôt establishments.

164. A forester and a timber-measurer in the Tharrawaddy division were both convicted of criminal breach of trust, and two foresters in the Western division were punished under the Indian Penal Code. A forest guard in the Toungoo division was sentenced to twenty months' rigorous imprisonment. The depôt gaung at Toungoo was prosecuted for criminal breach of trust and acquitted. Although the evidence was not considered strong enough for a conviction, it was sufficiently conclusive to render his dismissal imperative.

165. The head clerk at Toungoo was prosecuted for a similar offence, convicted, and sentenced to three years' rigorous imprisonment, but since the close of the year he has been released on appeal. A ranger was dismissed for dishonesty from the Pegu range.

Office establishments.

166. Mr. Buchanan as Superintendent of the Conservator's office and Mr. Allmark in charge of the Rangoon depôt and agency office have both discharged their responsible duties in a highly satisfactory manner.

Superintendent of Conservator's office and officer in charge of Rangoon depôt and agency.

RANGOON:
The 10th July 1884.

H. C. HILL,
Offg. Conservator of Forests, Pegu Circle.

APPENDICES.

ANNUAL FORM No. 49 [PRESCRIBED].—*Area of Reserved Forests in the Tenasserim Circle for 1883-84.*

Division or range.	Civil district or territory	Name of forest.	Area on 1st April 1883. Acres.	Area on 1st April 1883. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other heads. Acres.	Area on 31st March 1884. Acres.	Area on 31st March 1884. Equivalent in square miles.	No. and date of notification of addition or transfer.	Remarks
West Salween.	Salween	Wamu chaung	1,920	3	...	...	1,920	3		
		Sinzwè	8,960	14	...	...	8,960	14		
		Kahilu	9,600	15	...	...	9,600	15		
		Minnanrwè	3,840	6	..	...	3,840	6		
		Mewaung	7,360	12	...	...	7,360	12		
		Upper Méthalauk ...	8,960	14	...	...	8,960	14		
		Lower Do.	3,840	6	...	...	3,840	6		
	Shwegyin ...	Bilakatkyi	8,320	13	...	...	8,320	13		
		Ônkaugyi	8,320	13	...	...	8,320	13		
	Amherst	Tagalaung	5,120	8	...	...	5,120	8		
	Salweeh	Pa chaung	25,600	40	...	...	25,600	40		
		Dagwin	...	.	6,400	...	6,400	10	No. 58, dated 18th Sept. 1883.	
East Salween.	Amherst ..	Kamawkala	5,760	9	..	...	5,760	9		
		East Mèpalè	38,400	60	...	..	38,400	60		
		Mèpale	25,600*	40	...	...	25,600	40		
		Metkane	19,200	30	..	...	19,200	30		
		Kyaukket	12,160	19	...	..	12,160	19		
		Mègala	6,400	10	...	...	6,400	10		
		Winsaw	6,400	10	...	...	6,400	10		
		Mithawe	12,160	19	...		12,160	19		
		South Myawadi	150	.	...	...	150	...		
		Ônkaraing	33,920	53	...	...	33,920	53		
		Gawlè	37,120	58	...	...	37,120	58		
		Balèdo	1,600	2	...	...	1,600	2		
Ataran	Amherst	Dali	7,680	12	...	...	7,680	12		
		Pakabo	20,480	32	...	...	20,480	32		
		Natchaung	5,760	9	..	...	5,760	9		
		Gongyi	27,520	43	...	...	27,520	43		
		Ma-u	8,960	14	...	..	8,960	14		
		Mègwa	12,160	19	...	...	12,160	19		
		Thingannyinaung ...	5,760	9	...	...	5,760	9		
		Kyunchaung	10,880	17	...	...	10,880	17		
South Tenasserim.	Tavoy	Mintha	...	...	64,000	...	64,000	100	No. 51F., dated 17th August 1883.	Includes 12 square miles of Karen area.
		TOTAL TENASSERIM CIRCLE	389,910	609	70,400	...	460,310	719		
Myedè range.	Thayetmyo district ..	Tindaw	2,880	5	...	...	2,880	5		
		Sasuwa	4,800	7	...	...	4,800	7		
		Thayetmyo East Yoma ..	81,920	128	...	...	81,920	128		
Kama range...	Ditto ...	Saingdo	1,216	2a	...	..	1,216	2	.....	a Shewn as 1 last year should be 2.
		Thabala	6,080	9	...	...	6,080	9		
		Mindôn Yoma	166,400	260	...	...	166,400	260		
		Ngawet	3,200	5	..	...	3,200	5		
		Total Thayetmyo ...	266,496	416	.	..	266,496	416		

NAWIN RANGE	Prome district	Thitkat and Ayodaung	2,944		...	...	2,944	5		
		Thayetchaung and Nyaungbindet	4,864	8	...	...	4,864	8		
		Kywèmido	2,442	4	..	...	2,442	4		
		Nabèbyu	3,840	6	...	...	3,840	6		
		Shwelaung and Pwègin	13,120	21	...	...	13,120	21		
		Gwegyo	6,720	10	..	...	6,720	10		
		Chaungzauk	9,408	15	...	...	9,408	15		
		Ngalusan	700		...	...	700			
		Shwekyundaw	256	2	...	...	256	2		
		Prome plantation	73		...	...	73			
		Prome East Yoma	97,600	152	...	..	97,600	152	..	Includes Karen area of 43 square miles.
		Tônye fuel reserve	12,224	19	...	..	12,224	19		
		Pauktaw do.	4,672	7	...	...	4,672	7		
		Sunmizwe do.	6,400	10	...	...	6,400	10		
		Total	165,263	259	...	...	165,263	259		
		Total Prome	431,759	675	...	...	431,759	675		
		Karen areas	27,520	43	...	...	27,520	43		
		Total area free of taungya privileges	404,239	632	..	...	404,239	632		
SHWELE RANGE.	Prome district	Shwele Yoma	33,600	52	...	...	33,600	52	...	Includes Karen area of 12 square miles.
		Dawlè	1,800	3	.	...	1,800	3		
		Padetmyaung	4,500	7	...	...	4,500	7		
		Kyaukkyitaung	2,600	4	...	...	2,600	4		
		Bwet	2,900	5	...	...	2,900	5		
		Gwedauk kwin	10,200	16	...	...	10,200	16		
		Kyibyu	2,200	3	...	...	2,200	3		
		Kadinzauk & Kadinthônzin	3,500	6	...	..	3,500	6		
		Shabaung	2,200	3	..	...	2,200	3		
		Tarôkmaw and Inma			24,576	...	24,576	38	No. 46, dated 18th July 1883 ..	Partly in Tharrawaddy district.
BAWBIN RANGE.	Tharrawaddy district	Taungnyo Yoma	88,320	138	...	...	88,320	138	.....	Includes Karen area of 36 square miles.
		Upper Padinbin	600	1	...	...	600	1		
		Tapan	4,260	7	...	...	4,260	7		
		Nyanlè	5,800	9	...	...	5,800	9		
		Kanni	800	1	...	..	800	1		
		Pazingyi	1,300	2	...	...	1,300	2		
		Taungnyomyo	4,780	8	...	...	4,780	8		
		Minbu Bawbin	83,200	130	...	...	83,200	130		Includes Karen area of 25 square miles.
		Upper Payagyi	1,000	2	...	...	1,000	2		
		Thitcho	1,400	2	...	...	1,400	2		
		Lower Padinbin	200	...	...	...	200	..		
		Lower Payagyi	600	1	...	.	600	1		
		Kangyi	3,800	6	.	...	3,800	6		
		Gwedauksan	1,300	2	...	...	1,300	2		
		Chaungwa	700	1	...	...	700	1		
		Myodwin	38		..	...	38	..		
		Chaungzauk (fuel)	3,700	6	...	...	3,700	6		
		Carried forward	265,298	415	24,576	...	289,874	453		

* Area taken as 40 square miles and not 20 as heretofore, *vide* explanation noted in para. 1, Chapter I of the report.

ANNUAL FORM No. 49 [PRESCRIBED].—*Area of Reserved Forests for 1883-84*—(concluded).

Division or range.	Civil district or territory.	Name of forest.	Area on 1st April 1883.		Added during the year.	Excluded or transferred to other heads.	Area on 31st March 1884.		No. and date of notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles		
		Brought forward ...	265,298	415	24,576	...	289,874	453		
Gamôn range	Tharrawaddy district...	Minhla, Gamôn, and Taung	89,600	140	...	...	89,600	140	.....	Includes Karen area of 47 square miles.
		Taukkyan	4,640	7	...	...	4,640	7		
		Thakolan	960	1	...	..	960	1		
		Chaungngagôn	300	...	...	...	300	...		
		Satpôk (fuel)	4,700	7	...	...	4,700	7		
		Sitkwin (do.)	2,700	4	...	...	2,700	4		
Bilin range	Ditto ...	Môkka and Kadin Bilin ...	90,900	142	...	...	90,900	142	.....	Includes Karen area of 30 square miles.
		Kôn Bilin	12,800	20	...	...	12,800	20		
		Thônzè	44,800	70	24,934*	...	69,734	109	.....	Includes Karen area of 15 square miles.
		Thindawyo	6,400	10	...	...	6,400	10		
		Total Tharrawaddy ...	523,098	816	49,510	...	572,608	893		
		Karen areas ...	105 600a	165	...	...	105,600	165	. . .	a Reduced by 5 square miles, the difference between estimated and actual area.
		Total area free of taungya privileges	417,498	651	49,510	...	467,008	728		
Rangoon ...	Hanthawaddy district	Kyetpyugan	940	2	...	...	940	2		
		Kadat	64,000	100	...	...	64,000	100		
		Magayi	12,800	20	...	...	12,800	20		
		Ôkkan	80,000	125	...	...	80,000	125	.....	Includes Karen area of 13 square miles.
		Hlaing Yoma	59,520	93	...	...	59,520	93		
		Upper Zamayi	145,920	228	...	...	145,920	228	. ...	Includes Karen area of 88½ square miles.
		Lower do.	112,000	175	...	...	112,000	175	.....	Includes Karen area of 18½ square miles.
		Paunglin	...	...	68,480	...	68,480	107	No. 47F., dated 26th June 1883...	Includes Karen area of 7 square miles.
		Letpan	...	...	10,880	...	10,880	17	No. 63F., dated 8th October 1883.	
		Total ..	475,180	743	79,360	...	554,540	867		

			Fuel Reserves							
			Hmawbi	1,846	3	...	...	1,846	3	
			Kyun	8,600	13	...	...	8,600	13	
			Thitpyat	3,100	5	...	...	3,100	5	
			Thabyu	8,000	13	...	...	8,000	13	
			Total ...	21,546	34	...	...	21,546	34	
			Total Rangoon ..	496,726	777	79,360	...	576,086	901	
			Karen areas ...	76,800	120	4,480	...	81,280	127	No. 47F., dated 26th June 1883.
			Total area free of taungya privileges	419,926	657	74,880	...	494,806	774	
THAGAYA RANGE.	Toungoo		Yanè	5,800	9	...	...	5,800	9	
			East Swa	17,280	27	...	...	17,280	27	
			Kyaukmasin	20,480	32	...	...	20,480	32	
			Zaing	64,640	101	...	...	64,640	101	
ZEYAWADI ...	Do.		Bôndaung	25,600	40	...	...	25,600	40	
			Kabaung	220,800	345	...	...	220,800	345	.....
BÔNMADI ...	Do.		Pyunchaung	3,400	5	...	...	3,400	5	Includes Karen area of 65·5 square miles.
			Total Toungoo ...	358,000	559	...	...	358,000	559	
			Karen areas ...	41,920	65	...	...	41,920	65	
			Total free of taungya privileges	316,080	494	...	...	316,080	494	
KYAUKKYI RANGE.	Shwegyin district ...		Binbyè	6,400	10	...	...	6,400	10	
SITTANG RANGE.	Ditto ...		Kyundaung	960	1	...	...	960	1	
			Total Shwegyin ...	7,360	11	...	...	7,360	11	
			Total free of taungya privileges, Pegu Circle ...	1,565,103	2,445	124,390	...	1,689,493	2,639	
			Total Karen areas, Pegu Circle	251,840	393	4,480	...	256,320	400	
			GRAND TOTAL BRITISH BURMA	1,955,013	3,054	187,110	...	2,142,123†	3,346	

* Difference between area estimated and that found by survey. | † The equivalent of this is 3,347 square miles but as fractions are omitted the figure in the next column is less by one square mile.

FORM No. 50.—*Area of Teak and other Plantations in the Tenasserim Circle for 1883-84.*

Division.	Name of plantation.	On 1st April 1883.		Added during 1883-84.		On 1st March 1884.		Remarks.
		Area.	Cost.	Area.	Cost.	Total area.	Total cost.	
		Acres	Rs.	Acres	Rs.	Acres	Rs.	
	Regular plantations.							
Ataran ...	Thingannyinaung ...	16	14,993	.....	.....	16	14,993	
Salween ...	Shwegun ...	5	3,787	.....	.....	5	3,787	
	Kolôn island	2	3,539	.....	.....	2	3,539	
	Total ...	23	22,319	.....	.....	23	22,319	
	Fully stocked teak plantations (taungya).							
West Salween ...	Sinzwè ...	519	2,891	22	876	541	3,767	
	Wamu ...	5	74	19	107	24	181	
	Kahilu ...	4	131	9	15	13	146	
	Ônkangyi	44	268	.....	103	44	371	
	Bilakatkyi	21	81	.....	.....	21	81	
	Minnannwè	41	419	10	62	51	481	
	Mèwaing	89	621	26	178	115	799	
	Kyunchaung	8	331	26	339	34	670	
Ataran ...	Dali ...	47	111	15	210	62	321	
	Pakabo ...	.....	.....	3	11	3	11	
	Total ...	778	4,927	130	1,901	908	6,828	
	Fully stocked other plantations (taungya).							
West Salween ...	Kahilu (thitka) ...	.....	.....	6	.....	6	.....	
	Total ...	.....	.....	6	.....	6	.....	
	Indifferently stocked taungya plantations (teak).							
West Salween ...	Sinzwè ...	357	.....	.....	.....	357	.....	
	Wamu ...	10	.....	.....	.....	10	.....	
	Kahilu ...	19	.....	.....	.....	19	.....	
	Ônkangyi	8	.....	.....	.....	8	.....	
	Bilakatkyi	14	.....	.....	.....	14	.....	
	Minnannwè	62	.....	.....	.....	62	.....	
	Mèwaing ...	63	.....	.....	.....	63	.....	
Ataran ...	Dali ...	16	.....	.....	.....	16	.....	
	Kyunchaung	47	.....	.....	.....	47	.....	
East Salween ...	Mèpalè ...	15	10	28	130	43	140	
	Total ...	611	10	28	130	639	140	
South Tenasserim Division ...	Mergui plantation (not teak) ...	108	6,725	.....	1,549	108	8,274	
	Cultural operations ...	.....	.....	.....	239	.....	239	
	Grand Total ...	1,520	33,981	164	3,819	1,684	37,800	

ANNUAL FORM No. 50 [PRESCRIBED].—*Statement showing the area of Plantations in the Pegu Circle for 1883-84.*

Division	Name of plantation.	On 1st April 1883.		Added during 1883-84.		On 31st March 1884.		Remarks
		Area.	Cost.	Area.	Cost.	Total area.	Total cost.	
		Acres	Rs.	Acres	Rs	Acres	Rs.	
PROME ...	Prome plantation	73	9,109	..	...	73	9,109	
RANGOON ..	Kyetpyugan	683	78,070	...	523	683	78,593	
	Magayi	1,527	1,34,864	50	2,545 *	1,577	1,37,409	* Actual cost of planting 50 acres Rs. 815; Rs. 1,730 spent on former plantations.
THARRAWADDY ..	Chaungzeuk	340	34,727	..	...	340	34,727	
	Kywêmakaing	144	16,113	...	60	144	16,173	
	Myodwin	10	431 †	...	...	10	431	† Less by Rs. 456, which is a fire-protection charge.
TOUNGOO ...	Kanni	65	1,373	...	..	65	1,373	
	Pyunchaung	701	25,211	...	11	701	25,222 ‡	‡ Cost of weeding plantation of 1882.
	Yane	9	168	...	.	9	168	
ARAKAN ...	Myauktaung	10	1,160	...	...	10	1,160	
	Total Regular Plantations ...	3,562	3,01,296	50	3,139	3,612	3,04,365	
	Total Taungya Plantations ...	3,742	39,633	1,164	11,657	4,906	51,290	
	Total Cultural Operations ..	2,488	23,884	725	15,362	3,213	39,246	
	GRAND TOTAL AS PER VIIId EXPENDITURE ...	9,792	3,64,743	1,939	30,158	11,731	3,94,901	
	ABSTRACT.							
	British Burma.							
	Total regular plantations	3,585	3,23,545	50	3,139	3,635	3,26,684	
	Total taungya plantations	5,131	44 570	1,328	13,688	6,459	58,258	§ For details see form 50A.
	Total cultural operations §	2,596	30,609	725	17,150	3,321	47,759	
	GRAND TOTAL EXPENDITURE UNDER AVIIId FOR BRITISH BURMA	11,312	3,98,724	2,103	33,977	13,415	4,32,701	

FORM No. 50A.—*Statement of Taungya Teak, and Thitka Plantations in the Tenasserim Circle for 1883-84.*

Division.	Name of reserve.	Year of formation.	Area on 1st April 1883.	Area planted with teak during 1883-84.	Cost up to 1882-83. Original cost.	Cost up to 1882-83. Maintenance.	Cost during 1883-84. Original cost.	Cost during 1883-84. Maintenance.	Total cost.	Average cost per acre up to 1883-84.	Area on 31st March 1884.	Remarks
					Rs.	Rs.	Rs.	Rs.	Rs.	Rs. A. P.		
West Salween ...	Sinzwè	1869-70 ...	876	22	1,095	1,796	443	433	3,767	4 3 1	898	The major portion of the expenditure has been charged in the accounts for 1884-85, and in some cases the figures herein noted include expenditure of the previous year.
	Waimu	1877-78 ...	15	19	47	27	102	5	181	5 5 2	34	
	Kahilu	1879-80 ...	23	9	71	60	15	...	146	4 9 0	32	
	Ônkangyi	1877-78 ..	52	...	182	86	68	35	371	7 2 2	52	
	Bilakatkyi	1877-78 ...	35	.	75	6	...	...	81	2 5 0	35	
	Minnannwè...	1877-78 ...	103	10	386	33	50	12	481	4 4 1	113	
	Mèwaing	1878-79 ...	152	26	488	133	173	5	799	4 7 10	178	
	Total ...		1,256	86	2,344	2,141	851	490	5,826	4 5 6	1,342	
Ataran	Dali	1877-78 ...	63	15	62	49	208	2	321	4 1 10	78	
	Kyunchaung	1881-82 ...	55	26	313	18	325	14	670	8 4 4	81	
	Pakabo	1883-84 ...	...	3	...	...	11	...	11	3 10 8	3	
	Total ...		118	44	375	67	544	16	1,002	6 3 0	162	
East Salween	Mèpalè	1882-83 ...	15	28	10	...	56	74	140	3 4 1	43	
	Plantations other than Teak.											
West Salween ...	Kahilu	1883-84 ...	...	6	...	...	...	...	...	...	6	Thitka.
	Total ...		1,389	164	2,729	2,208	1,451	580	6,968	4 7 9	1,553	

FORM No. 50A.—*Statement of Taungya Teak, Cutch, &c., Plantations in the Pegu Circle for 1883-84.*

Division.	Name of reserve.	Year of formation.	Area on 1st April 1883	Area planted with teak during 1883-84.	Cost up to 1882-83.		Cost during 1883-84.		Total cost.	Average cost per acre up to 1883-84.	Area on 31st March 1884.
					Original cost.	Maintenance.	Original cost.	Maintenance.			
							Rs.	Rs.	Rs.	Rs. A. P.	
THARRAWADDY.	Bwet	1875-76 ...	37	.....	.....	.....	.....	.....	.....	.....	.....
		1876-77 ...	50	.....	.....	.....	.....	.....	.....	.....	.....
		1877-78 ...	44	.....	.....	.....	.....	.....	.....	.....	.....
		1878-79 ...	150	.....	.....	.....	.....	.....	.....	.....	.....
		1880-81 ...	19	.....	.....	.....	.....	.....	.....	.....	.....
	Total ...	.....	300	.....	1,613	448	.....	.....	2,061	6 13 11	300
	Shwele Yoma	1875-76 ...	11	.....	76	.....	.....	.....	76	6 14 6	Failure 11
	Nyanlè	1878-79 ...	1								
		1879-80 ...	8								
		1880-81 ...	28	.....	806	175	.....	.....	.....	.....	.....
		1881-82 ...	14					32			
		1882-83 ...	20					41			
		1883-84 ...	.....	18	16	.....	135	.....	.....	.....	.....
	Total ...	.....	71	18	822	175	135	73	1,205	13 8 8	89
	Taungnyo Yoma	1875-76 ...	15	.....	135	59	.....	.....	194	12 14 11	Failure 15
	Titcho	1869-70 ...	7	.....	70	.....	.....	.....	.....	.....	.....
		1870-71 ...	8								
	Total ...	.....	15	.....	70	.....	.....	.....	70	4 10 8	Unsatisfactory 15
	Gwedauksan	1875-76 ...	11								
		1876-77 ...	9								
		1878-79 ...	8	.....	697	200	.....	.....	.....	.....	.....
		1880-81 ...	15					26			
		1881-82 ...	10					22			
		1882-83 ...	11								
		1883-84 ...	.....	17	15	.....	187	.....	.....	.....	.....
	Total ...	.....	64	17	712	200	187	48	1,147	14 2 7	81
	Bawbin Kyaukpyu	1875-76 ...	15	.....	118	10	.....	.....	128	8 8 6	Failure 15
	Bawbin Chaungwa ...	1869-70 ...	17								
		1873-74 ...	4								
		1874-75 ...	30								
		1876-77 ...	30								
		1877-78 ...	25	.....	1,816	672	.....	.....	.....	.....	.....
		1878-79 ...	26								
		1879-80 ...	18								
		1880-81 ...	28					69			
		1881-82 ...	28								
	Total ...	.....	206	.....	1,816	672	.....	69	2,557	12 6 7	206
	Kangyi	1878-79 ...	54								
		1879-80 ...	66								
		1880-81 ...	58	.....	1,637	817	.....	.....	.....	.....	In addition to this there are 17 acres outside reserve planted in 1865, cost unknown.
		1881-82 ...	14					34			
		1882-83 ...	3					7			
		1883-84 ...	.....	44	73	.....	420	.....	.....	.....	.....
	Total ...	.....	195	44	1,710	817	420	41	2,988	12 8 0	239
	Minhla	1873-74 ...	22								
		1874-75 ...	40	.....	1,184	843	.....	.....	.....	.....	.....
		1875-76 ...	57								
		1883-84 ...	.....	28	60	.....	106	.....	.....	.....	.....
	Total ...	.....	119	28	1,244	843	106	.....	2,193	14 14 8	147

FORM No. 50A.—*Statement of Taungya Teak, Cutch, &c., Plantations in the Pegu Circle for 1883-84*—(continued).

Division.	Name of reserve.	Year of formation.	Area on 1st April 1883.	Area planted with teak during 1883-84.	Cost up to 1882-83. Original cost.	Cost up to 1882-83. Maintenance.	Cost during 1883-84. Original cost.	Cost during 1883-84. Maintenance.	Total cost.	Average cost per acre up to 1883-84.	Area on 31st March 1884.
							Rs.	Rs.	Rs.	Rs. A. P.	
THARRAWADDY—(concluded).	Minhla Mōkka ...	1873-74 ...	23								
		1874-75 ...	41								
		1875-76 ...	86		3,714	1,338	.....	.....	.....	.....	.....
		1880-81 ...	38	.....							
		1881-82 ...	131					241			
		1882-83 ...	123				20	271	.....	.....	.....
		1883-84 ...	.....	213	484	.....	1,517	...	.....	.....	.....
	Total ...	.....	442	213	4,198	1,338	1,537	512	7,585	11 9 3	655
	Mōkka Bilin ...	1869-70 ...	10								
		1870-71 ...	12								
		1871-72 ...	27								
		1873-74 ...	160								
		1874-75 ...	157								
		1875-76 ...	29								
		1876-77 ...	155	.....	10,762	4,031	.....	.....	.....	.....	.....
		1877-78 ...	96								
		1878-79 ...	102								
		1879-80 ...	86								
		1880-81 ...	136								
		1881-82 ...	259					556	.....	.....	.....
		1882-83 ...	233					520	.....	.....	.....
		1883-84 ...	.....	245	782	.....	2,213	...	.....	.....	.....
	Total ...	.....	1,462	245	11,544	4,031	2,213	1,076	18,864	11 0 10	1,707
	Kadin Bilin ...	1875-76 ...	4	.....	23	17	.....	.....	40	10 0 0	4
	Thônzè Kôn Bilin ...	1875-76 ...	19								
		1877-78 ...	38								
		1878-79 ...	34								
		1879-80 ...	41	.....	2,130	871	.....	.....	.....	.....	.....
		1880-81 ...	95								
		1881-82 ...	77					117	.....	.....	.....
		1882-83 ...	52				10	121	.....	.....	.....
		1883-84 ...	.....	117	64	.....	998	.....	.....	.....	.....
	Total ...	.....	356	117	2,194	871	1,008	238	4,311	9 1 10	473
	TOTAL THARRAWADDY ...	.....	3,275	682	26,275	9,481	5,606	2,057	43,419	10 15 7	3,957
PROME ...	Chaungzauk ...	1879-80 ...	67	.....	304	609	..	.....			
		1880-81 ...	132	.....	319	.....	.....	.....			
		1881-82 ...	102	.....	712	310	.....	.....	3,412	.....	.....
		1882-83 ...	98	.....	1,158	.....	.....	.....			
		1883-84 ...	.....	162	.....	...	848	576	1,424	.....	.....
	TOTAL PROME	.....	399	162	2,493	919	848	576	4,836	8 9 11	561
RANGOON ...	Dawe	1882-83 ...	30	.....	76	.....	.....	.....	.....	.....	.....
		1883-84 ...	.....	57	.....	.....	226	.....	.....	.....	.....
	Total ...	.....	30	57	76	.....	226	.....	302	3 7 6	87
TOUNGOO ...	Yanè	1883-84 ...	.....	18	.....	.....	209	.....	209	.....	.....
	East Swa	.....	.....	19	.....	.....	273	.....	273	.....	.....
	Bōndaung	.....	.....	17	.....	.....	144	.....	144	.....	.....
	Kabaung	.....	.....	4	.....	.....	41	.....	41	.....	.....
	TOTAL TOUNGOO ...	.....	.....	58	.....	.....	667	.....	667	11 8 0	58
	TOTAL TEAK TAUNGYAS ...	.....	3,704	959	28,844	10,400	7,347	2,633	49,224	10 8 11	4,663
THARRAWADDY ...	Kyaukkyidaung ...	1883-84	.....	33	9	.....	333	.....	342	10 5 10	33
	Gwedaukkwin ...		.....	91	30	.....	633	.....	663	7 4 7	91
	Total ...	.....	.....	124	39	.....	966	.....	1,005	.....	124
PROME ...	Chaungzauk	1882-83 ...	38	.....	350	.....	.....	.....	350	.....	.....
		1883-84 ...	.....	81	.....	.....	423	288	711	.....	119
	Total Cutch ...	.....	38	205	389	.....	1,389	288	2,066	.....	243
	Total Taungyas ...	.....	3,742	1,164	29,233	10,400	8,736	2,921	51,290	.....	4,906

FORM No. 50A.—*Statement of Taungya Teak, and Cutch, &c., Plantations in the Pegu Circle for 1883-84*—(concluded).

Division.	Name of reserve	Cultural operations						Remarks.
		On 1st April 1883.		Added in 1883-84.		On 31st March 1884.		
		Area.	Cost.	Area	Cost.	Area.	Cost.	
THARRAWADDY	Bwet	600	5,473	...	1,026	600	6,499	
	Nyanlè	530	5,382	300	5,057	830	10,439	
	Kangyi	350	1,942	...	...	350	1,942	
	Mokka Bilin	1,008	6,353	...	126	1,008	6,479	
	Tharrawaddy forest garden	...	3,167	...	1,788	...	4,955	
	Kyaukkyidaung	...	661	...	604	...	1,265	
	Gwedauk kwin	...	114	...	...	...	114	
	Pazingyi	...	...	125	1,636	125	1,636	
	Kadunzauk	...	25	300	2,857	300	2,882	
	Teak and cutch seeds	...	...	...	1,718	...	1,718	
	Total	2,488	23,117*	725	14,812	3,213	37,929	* Cost of seeds Rs. 1,443 of last year debited to Taungya.
RANGOON	Ditto	...	...	...	382	...	382	Cost of operations in connection with *Chevannesia, ceara, ficus, &c.*
PROME	Chaungzauk	...	24	...	13	...	37	Mulberry experiments.
TOUNGOO	Pyunchaung	...	743	...	155	...	898	Cost of planting, weeding and fencing evergreen fire-traces added.
	Total Cultural Operations	2,488	23,884	725	15,362	3,213	39,246	
	Total Taungya and Cultural Operations	...	...	...	34,462	...	...	

FORM No. 51.—*Area of Forest Tracts protected from Fire during the Dry Season of 1884 (to accompany Report for 1883-84).*

Division.	Forest tracts	Up to May 1883.		During the dry season of 1884				Total cost up to June 1884.	Year in which protection commenced.	Remarks
		Area actually protected.	Total cost.	Area attempted to be protected.	Failure.	Area actually protected.	Amount expended			
		Acres	Rs	Acres	Acres	Acres	Rs	Rs		
West Salween	Sinzwè	8,957	4,626	8,960	606	8,354	947	5,573	1871	
	Wamu	1,920	55	1,920	500	1,420	15	70	1871	
	Kahilu	1,280	147	1,280	1,262	18	...	147	1878	
	Mèwaing	7,360	164	7,360	.	7,360	16	180	1877	
	Minnannwè	3,840	11	3,840	...	3,840	...	11	1878	
	Ônkangyi	6,390	649	8,320	383	7,937	94	743	1877	
	Bilakatkyi			8,320	4,480	3,840				
East Salween	Mèpalè West	9,600	1,267	25,600	7,040	18,560	1,112	2,379	1881	
Ataran	Kyunchaung	10,830	698	10,880	61	10,819	610	1,308	1880	
	Dali	63	274	169	100	69	140	414	1878	
	Nat stream	..	...	1,800	.	1,800	166	166	1883	
	Pakabo	.	..	3		3	6	6	1883	
	Total	50,240	7,891	78,452	14,432	64,020	3,106	10,997	...	

	Rs.
Charged in previous years	1,857
Do 1879-80 ..	1,299
Do 1880-81 ...	1,533
Do 1881-82	1,409
Do 1882-83 .	1,793
Do 1883-84 ..	3,106
Total	10,997

FORM No. 51.—*Area of Forest Tracts protected from Fire during the Dry Season of 1884 (to accompany Report for 1883-84).*

Division.	Forest tracts.	Up to June 1883. Area actually protected	Up to June 1883. Total cost	During dry season of 1884. Area attempted to be protected.	During dry season of 1884. Failure.	During dry season of 1884. Area actually protected.	During dry season of 1884. Amount expended.	Total cost up to June 1884.	Year in which protection commenced.	Remarks.
			Rs.				Rs	Rs.		
PROME ...	Teak plantation—									
	Gwegyo ...	75	76	75	..	75	24	100	1875	
	Chaungzauk ...	3,495	7,612	3,535	621*	2,914	785	8,397	1879	*Includes 280 acres plantation.
THARRAWADDY...	Môkka-Bilin ...	14,380	14,455†	20,980	468	20,512	1,149	15,604	1873	†Reduced by Rs. 100, excess charged in 1881-82.
	Bawbin ...	614	3,780	814	5	809	298	4,078	1869	Includes 2 acres plantation.
	Myodwin ...	40	581	40	...	40	38	619	1869	
	Bwet ..	2,867	6,475	2,886	64	2,822	1,116	7,591	1877	Includes 27 acres plantation
	Kangyi ...	3,649	9,305	3,801	350	3,451	1,109	10,414	1877	Ditto 29 ditto.
	Nyanlè ..	4,040	12,436	5,340	...	5,340	1,158	13,594	1877	
	Thônzè, Kôn Bilin ...	2,180	530	2,180	13	2,167	140	670	1876	Includes 11 acres plantation
	Myaung-Minhla ...	69	723	819	150	669	340	1,063	1876	Ditto 42 ditto.
	Minhla-Môkka ...	2,850	1,011	3,000	...	3,000	220	1,231	1876	
	Gwedauksan ...	225	361	233	...	233	90	451	1876	
RANGOON ...	Magayi plantation ...	1,455	21,382	1,577	50	1,577	1,917	23,299	1872	
	Magayi reserve..	1,684		1,562		1,512				
	Kyetpyugan ...	683	4,305	683	30	653	646	4,951	1868	
	Dawè ...	..	..	30,750	..	30,750	110	110	1883	
TOUNGOO ...	Pyunchaung ..	3,434	5,032	3,440	10	3,430	441	5,473	1877	Includes 3 acres plantation.
	Yanè .	5,760	2,930	5,760	..	5,760	351	3,311		
	East Swa ...	17,273	1,174	17,280	10	17,270	903	2,077	1883	
ARAKAN ...	Myauktaung plantation ...	...	785	...		..	...	785	1874	
	Total Pegu Circle ...	64 973	92,953	104,755	1,771	102,984	10,865	1,03,818	...	
	Total Tenasserim Circle ...	50,240	7,891	78,452	14,432	64,020	2,106	10,997	...	
	GRAND TOTAL BRITISH BURMA .	115,213	1,00,844	183,207	16,203	167,004	13,971	1,14,815	...	

	Rs.
Charged in previous year...	72,408
Do. 1881-82 ...	9,848
Do. 1882-83 ...	10,697
Do. 1883-84 ..	10,865
Total ..	1,03,818

ANNUAL FORM No. 52.— PRESCRIBED].—*Prosecutions for Breaches of Forest Rules during 1883-84.*

Forest division and civil district.	Cases pending from 1883-84.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Tavoy	...	...	5	...	...	5	5	5	5	...	...	5	5	One case compounded under section 66 of the Forest Act, 1881.
Mergui	...	...	4	...	..	4	4	4	11	...	3	4	14	...
Amherst, Kado, Salween, and Ataran	2	...	34	...	28	62	64	49	77	8	25	57	102	Seven pending.
West Salween, Papun	...	..	1	..	3	4	4	2	5	2	14	4	19	...
East Salween, Kawkareik	...	...	...	1	1	2	2	2	2	...	...	2	2	..
Total Tenasserim Circle ...	2	...	44	1	32	77	79	62	100	10	42	72	142	7
Tharrawaddy Division—														
Prome civil district	...	1	26	...	...	27	27	26	46	1	2	27	48	...
Tharrawaddy	...	...	22	...	...	22	22	18	21	4	5	22	26	...
Total ..	...	1	48	...		49	49	44	67	5	7	49	74	...
Prome Division—														
Prome district	...	...	13	...	3	16	16	15	17	1	2	16	19	...
Thayetmyo	...	..	9	...	3	12	12	11	37	1	3	12	40	...
Thitkat Ayodaung	..	...	1	...	...	1	1	.	...	1	31	1	31	...
Luthe Lubôn	...	...	1	...	...	1	1	1	2	.	...	1	2	...
Satsuwa	...	...	1	...	...	1	1	.	..	1	4	1	4	...
Total ...	...	...	25	...	6	31	31	27	56	4	40	31	96	...
Rangoon Division—														
Rangoon Town district	...	..	3	...	...	3	3	2	2	1	13	3	15	...
Hanthawaddy	..	...	14	...	...	14	14	11	13	3	7	14	20	...
Pegu	...	...	3	...	...	3	3	2	2	1	1	3	3	...
Total ...	..	..	20	...	...	20	20	15	17	5	21	20	38	.
Western Division—														
Henzada	...	...	2	...	...	2	2	1	1	1	1	2	2	...
Myanaung	...	...	4	...	...	4	4	3	5	...	...	3	5	1
Bassein	...	...	6	...	...	6	6	6	6	...	.	6	6	...
Total ...	...	...	12	...	...	12	12	10	12	1	1	11	13	1
Toungoo Division—														
Toungoo..	...	...	3	...	1	4	4	3	3	..	3	3	6	1
Total Pegu Circle ...	...	1	108	...	7	116	116	99	155	15	72	114	227	2
GRAND TOTAL BRITISH BURMA ...	2	1	152	1	39	193	195	161	255	25	114	186	369	9

Dr. ANNUAL FORM No. 54.—[PRESCRIBED].—*Account-current for 1883-84.* Cr.

TENASSERIM CIRCLE.		Rs. A. P.	Rs. A. P.
To Opening balance ...		.....	299 9 4
„ Revenue as per annual form No. 53		.....	6,58,047 7 3
„ *Service funds*—			
Military Fund, Madras		393 7 3	
Military Orphan Fund, Madras		47 11 2	
Uncovenanted Service Fund, Bengal		1,215 10 0	
			1,656 12 5
„ *Forest cash remittances (local)*—			
Forest cheques drawn		3,89,686 11 9	
Interdivisional transfers		15 0 0	
			3,89,701 11 9
„ Advances recoverable		.....	1,26,035 0 4
„ Suspense ...		.....	95 0 0
„ *Account-current (other Governments)*—			
Government of India		426 11 2	
Government of N.-W.P. and Oudh		640 10 8	
			1,067 5 10
„ *Interdepartmental transfers*—			
Military Department, Madras		73 5 8	
„ *Civil Department*—	Rs. A. P.		
Jail ...	350 0 0	.....	
Mathematical Instrument Department	104 1 0	454 1 0	
		447 4 0	
Telegraph Department			
Marine Department		5,606 0 6	
			6,580 11 2
Total Tenasserim		.....	11,83,473 10 1

PEGU CIRCLE.		Rs. A. P.	Rs. A. P.
To Opening balance ...		.....	2,864 15 11
„ Revenue as per annual form No. 53		.....	18,51,227 8 8
„ *Service funds*—			
Uncovenanted Service Fund, Bengal		.....	535 11 0
Deposits ...		.....	619 4 6
„ *Forest cash remittances (local)*—			
Forest cheques drawn		8,17,752 5 0	
Interdivisional transfers		34,656 2 11	
			8,52,408 7 11
„ Advances recoverable		.....	3,11,645 2 1
„ Suspense ...		.....	4 0 0
„ *Account-current (other Governments)*—			
Government of India		8 5 4	
Government of N.-W. P. and Oudh		2,704 5 4	
			2,712 10 8
„ *Inter-departmental transfers*—			
P. W. D. State Railways, Burma State Railway		5,797 7 3	
P. W. D., other branches		182 12 0	
Military Department, Madras		104 0 1	
„ *Civil Department*—	Rs. A. P.		
Mathematical Instrument Department	723 8 0	.....	
Miscellaneous	224 3 3	947 11 3	
Marine Department		175 9 9	
			7,207 8 4
Total Pegu		.....	30,29,225 5 1

TENASSERIM CIRCLE.		Rs. A. P.	Rs. A. P.
By Expenditure as per annual form No. 53		.....	4,13,670 15 4
„ *Forest cash remittances (local)*—			
Remittances to treasuries ...		5,42,343 14 8	
Interdivisional transfers		63 8 0	
			5,42,407 6 8
„ Advances recoverable		.....	1,13,712 15 11
„ Suspense ...		.....	45 0 0
„ *Account-current (other Governments)*—			
Government of India		.....	39,080 11 0
„ *Interdepartmental transfers*—			
P. W. D., other branches		4,800 1 10	
Military Department, Bengal		223 3 0	
Ditto, Madras		17,488 15 4	
Ditto, Bombay		50,325 15 4	
„ *Civil Department*—	Rs. A. P.		
Jail ...	53 10 5		
Police ...	721 11 0		
		775 5 5	
Telegraph Department		184 4 8	
			73,797 13 7
„ Closing balance ...		.....	608 11 7
Total Tenasserim		.....	11,83,473 10 1

PEGU CIRCLE.		Rs. A. P.	Rs. A. P.
By expenditure as per annual form No. 53		.....	8,03,952 6 2
„ *Forest cash remittances (local)*—			
Remittances to treasuries ...		17,15,935 9 1	
Interdivisional transfers		34,688 7 11	
			17,50,624 1 0
„ Advances recoverable		.....	3,32,386 11 3
„ Suspense ...		.....	4 0 0
„ *Account-current (other Governments)*—			
Government of India		.....	51,474 4 3
„ *Inter-departmental transfers*—			
P. W D. State Railways, Burma State Railway		75,646 14 3	
P. W. D., other branches		4,372 12 4	
Military Department, Madras		464 4 7	
„ *Civil Department*—	Rs. A. P.		
Jail ...	4,096 10 0		
Mathematical Instrument Department	65 0 0		
Cinchona and coffee plantation charges	1,686 4 3		
Police ...	200 0 0		
		6,047 14 3	
Telegraph Department		661 1 0	
			87,212 14 5
„ Closing balance ...		.....	3,571 0 0
Total Pegu		.....	30,29,225 5 1

G. J. VANSOMEREN, *Major,*
Asst. Comptroller-General, (Forests).

ANNUAL FORM No. 54 [PRESCRIBED].—*Account-current for 1883-84.*

	Tenasserim Circle	Pegu Circle.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
To opening balance	289 9 4	2,864 15 11	3,154 9 3
To revenue as per annual form No. 53	6,58,047 7 3	18,51,227 8 8	25,09,274 15 11
Service funds—			
Military fund, Madras	393 7 3	...	393 7 3
Military Orphan Fund, Madras	47 11 2	.	47 11 2
Uncovenanted Service Fund, Bengal	1,215 10 0	535 11 0	1,751 5 0
Deposits	.....	619 4 6	619 4 6
Forest cash remittances (local)—			
Forest cheques drawn	3,89,686 11 9	8,17,752 5 0	12,07,439 0 9
Interdivisional transfers	15 0 0	34,656 2 11	34,671 2 11
Advances recoverable	1,26,035 0 4	3,11,645 2 1	4,37,680 2 5
Suspense	95 0 0	4 0 0	99 0 0
Account-current (other Governments)—			
Government of India	426 11 2	8 5 4	435 0 6
Government of North-Western Provinces and Oudh	640 10 8	2,704 5 4	3,345 0 0
Interdepartmental transfers—			
Military Department, Madras	73 5 8	104 0 1	177 5 9
Public Works Department State Railways, British Burma State Railway	..	5,797 7 3	5,797 7 3
Other branches	..	182 12 0	182 12 0
Civil department—			
Jails	350 0 0	...	350 0 0
Mathematical Instrument Department ...	104 0 0	723 8 0	827 9 0
Telegraph Department	447 4 0	...	447 4 0
Marine Department	5,606 0 6	175 9 9	5,781 10 3
Miscellaneous		224 3 3	224 3 3
Total ..	11,83,473 10 1	30,29,225 5 1	42,12,698 15 2

	Tenasserim Circle.	Pegu Circle.	Total.
	Rs. A. P.	Rs A. P.	Rs A. P.
By expenditure as per annual form No. 53	4,13,870 15 4	8,03,952 6 2	12,17,823 5 6
Forest cash remittances (local)—			
Remittances to treasuries	5,49,343 14 8	17,15,935 9 1	22,58,279 7 9
Interdivisional transfers	63 8 0	34,688 7 14	34,751 15 11
Aadvances recoverable	1,13,712 15 11	3,32,386 11 3	4,46,099 11 2
Ssuspense	45 0 0	4 0 0	49 0 0
Account-current (other Governments)—			
Government of India	39,030 11 0	51,474 4 3	8,90,504 15 8
Interdepartmental transfers—			
Public Works Department State Railways, British Burma State Railway	...	75,646 14 3	75,646 14 3
Public Works Department, other branches	4,800 1 10	4,372 12 4	9,172 14 2
Military Department, Bengal	223 3 0	.	223 3 0
Ditto, Madras	17,488 15 4	484 4 7	17,973 3 11
Ditto, Bombay	50,325 15 4	.....	50,325 15 4
Civil Department—			
Jails	53 10 5	4,096 10 0	4,150 4 5
Police	721 11 0	200 0 0	921 11 0
Mathematical Instrument Department	. .	65 0 0	65 0 0
Telegraph Department	184 4 8	661 1 0	845 5 8
Cinchona and coffee plantation charges	.....	1,686 4 3	1,686 4 3
Closing balance	608 11 7	3,571 0 0	4,179 11 7
Total ..	11,83,473 10 1	30,29,225 5 1	42,12,698 15 2

ANNUAL FORM No. 55 [PRESCRIBED].—*Statement of Outstandings and Liabilities on account of Contractors and Disbursers for 1883-84.*

Division	Department debtor			Department creditor.			Balance due.		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year	At close of year	To department (outstandings).	By department (liabilities)	
	Rs A. P.	Rs. A P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Salween	.....	1,05,260 6 10	1,05,260 6 10	46,630 0 9	89,913 7 10	1,36,543 8 7	31,283 1 9	.....	
Kado revenue station	.....	4,176 12 0	4,176 12 0	971 12 0	3,530 0 0	4,501 12 0	325 0 0	.....	
South Tenasserim	..	16,597 13 6	16,597 13 6	.....	20,269 8 1	20,269 8 1	3,671 10 7	.....	
Total Tenasserim Circle .	.....	1,26,035 0 4	1,26,035 0 4	47,601 12 9	1,13,712 15 11	1,61,314 12 8	35,279 12 4	.....	
Government Timber Depôt and Agency Office	...	14,701 9 5	14,701 9 5	2,514 9 0	15,024 11 2	17,539 4 2	2,840 10 9	3 0 0	
Rangoon	950 0 0	38,960 13 10	39,910 13 10	7,008 11 5	51,865 11 6	58,874 6 11	19,113 9 1	150 0 0	
Tharrawaddy	.....	1,56,016 15 6	1,56,016 15 6	47,171 15 8	1,58,053 14 0	2,05,225 13 8	49,208 14 2	.....	
Prome	.	24,761 11 7	24,761 11 7	23,435 8 0	34,161 11 7	57,597 3 7	32,835 8 0	.....	
Western	1 0 0	9,299 8 4	9,300 8 4	9,957 10 8	2,957 12 0	12,915 6 8	3,614 14 4	..	
Toungoo	.....	54,619 4 5	54,619 4 5	3,302 12 11	55,291 14 0	58,594 10 11	3,975 6 6	.....	
Shwegyin	.	13,285 3 0	13,285 3 0	4,365 2 0	15,031 1 0	19,396 3 0	6,111 0 0	.....	
Total Pegu Circle ...	951 0 0	3,11,645 2 1	3,12,596 2 1	97,756 5 8	3,32,386 11 3	4,30,143 0 11	1,17,699 14 10	153 0 0	
GRAND TOTAL BRITISH BURMA ...	951 0 0	4,37,680 2 5	4,38,631 2 5	1,45,358 2 5	4,46,099 11 2	5,91,457 13 7	1,52,979 11 2	153 0 0	

CALCUTTA :
The 11th June 1884.

G. J. VANSOMEREN, *Major,*
Asst. Comptroller-General (Forests).

ANNUAL FORM No. 56.—[PRESCRIBED.]—*Revenue received and Outstandings on account of Revenue during 1883-84.*

Division.	Particulars.	Outstandings at commencement of year	Value of sales and other revenue during year.	Total.	Amount realized during year	Balance due to the department at end of year	Remarks.
		Rs. A. P.	Rs. A. P	Rs A. P.	Rs A. P.	Rs. A. P	
SALWEEN	Timber and other produce, &c		4,78,454 13 2	4,78,454 13 2	4,78,454 13 2	..	
KADO REVENUE STATION...	Do. do.	...	1,25,218 1 0	1,25,218 1 0	1,25,218 1 0	...	
SOUTH TENASSERIM ...	Do. do.	.....	54,374 9 1	54,374 9 1	54,374 9 1	.	
	Total Tenasserim Circle ...	.. ..	6,58,047 7 3	6,58,047 7 3	6,58,047 7 3	.....	
G T DEPOT AND AGENCY OFFICE .	Timber and other produce, &c.	37,804 3 10	13,82,040 7 1	14,19,844 10 11	13,98,683 12 11	21,160 14 0	
RANGOON	Do. do.	.. ...	1,05,310 9 6	1,05,310 9 6	1,04,644 9 6	666 0 0	
THARRAWADDY ...	Do do	82 0 0	82,978 6 3	83,060 6 3	83,060 6 3	.	
PROME	Do. do	. ..	75,813 0 7	75,813 0 7	75,813 0 7	..	
WESTERN	Do. do.	...	60,470 8 10	60,470 8 10	59,811 8 10	659 0 0	
TOUNGOO	Do. do	155 6 10	62,808 14 2	62,964 5 0	62,964 5 0	.....	
SHWEGYIN ..	Do. do	. .	66,249 13 7	66,249 13 7	66,249 13 7	.....	From public department 659 0 / From private purchasers 21,826 14 / Total ... 22,485 14
	Total Pegu Circle ...	38,041 10 8	18,35,671 12 0	18,73,713 6 8	18,51,227 8 8	22,485 14 0	
	GRAND TOTAL BRITISH BURMA ...	38,041 10 8	24,93,719 3 3	25,31,760 13 11	25,09,274 15 11	22,485 14 9	

G. J. VANSOMEREN, *Major,*
Asst. Comptroller-General (Forests).

ANNUAL FORM No. 57.—[PRESCRIBED].—*Statement showing the Financial Results in the Tenasserim and Pegu Circles for 1883-84.*

Division.		Timber and other produce removed from the forests by Government agency.		Other Revenue.		Formation, protection, and improvement of forests.	Total.		Remarks.
		Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts	Charges.	
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
TENASSERIM	Salween	1,14,889	37,920	10,966	9,025	10,542	1,25,855	57,487	
	East Salween	1.79,515	1,10,904	10,716	3,999	9.216	1,90,231	1,24,109	
	West Salween	64,543	44,908	5,633	2,527	14,214	70,176	61,649	
	Ataran	68,420	41,784	22,378	2,726	10,639	90,798	55,149	
	South Tenasserim	40,072	39,040	14,302	5,231	8,754	54,374	53,025	
	Kado	...	...	1,25,218	62,451	...	1.25,218	62,451	
	Total Tenasserim Circle ...	4,67,439*	2,74,556	1,89,213	85,949	53,365	6.56,652*	4,13,870	
PEGU ...	Tharrawaddy	6,48,236	1,32.573	76,265	20,666	53,272	7.24,507	2,06.511	
	Rangoon	1,59,809	1,59,117	32,054	12,255	16,512	1,91,863	1,87,884	
	Prome	2,21,548	45,358	69,179	11,609	12,615	2,90,727	69,582	
	Toungoo	3,78,735	2,11,009	17,007	6,642	18,085	3,95,742	2,35,736	
	Agency	44,793	18,096	10,272	..	...	55,065	18,096	
	Western	39,614	25,450	25,467	5,439	4,651	65,081	35,540	
	Shwegyin	1,02,599	42,486	25,650	4,059	4,058	1,28,249	50,603	
	Total Pegu Circle ...	15,95,334	6,34,089	2,55,394	60,670	1,09,193	18,51,228	8,03,952	
	GRAND TOTAL BRITISH BURMA ...	20,62,773*	9,08,645	4,45,107	1.46,619	1,62,558	25,07,880*	12,17,822	

* A subsequent addition of Rs. 1,395-3-0 is not included in this statement as details are not available for distributing it to the different divisions.

FORM No. 60 [PRESCRIBED].—*Statement of Timber and other Produce received from Forests in Sale Depôts during 1883-84.*

Division.	Depôt.	Produce received. Description.	Number or quantity.	Cubic feet.	Remarks
		TENASSERIM CIRCLE.			
SALWEEN ...	Battery Point and Kado depôts.	Teak pieces and crooks ...	6,260	52,432	Lower Salween forests.
		Teak crooks ...	452	4,740	Kolun forest.
		Teak logs ...	41	2,511	Foreign.
		Thitka logs ...	52	2,378	
		Pyinma logs ...	115	4,363	
		Thitgado logs ...	15	1,156	
		Total Salween ...	6,935	67,580	
EAST SALWEEN ...	Ditto ...	Teak logs and pieces ...	5,664	228,016	Thaungyin forests (16 logs, 683 feet, transferred from Kado division).
		Teak pieces and crooks ...	1,721	21,280	Hlaingbwè forest.
		Padauk ...	257	9,809	
		Thitka logs ...	32	2,182	
		Pyinma logs ...	340	16,396	
		Thitgado logs ...	20	1,003	
		Ingyiu ...	1	41	
		Total East Salween ...	8,044	278,727	
WEST SALWEEN ...	Ditto ...	Teak logs ...	187	12,981	Methalauk forests (4 logs, 288 feet, transferred from Kado division).
		Teak logs, pieces, and crooks ...	10,602	90,467	Dondaung forest.
		Ditto ditto ...	3,391	50,020	Yunzalin forest.
		Thitka logs ...	25	1,263	
		Pyinma logs ...	243	10,213	
		Pyingado sleepers, large ...	150	520	
		Total West Salween ...	14,498	165,484	
ATARAN ...	Ditto ...	Teak logs, pieces, and crooks ...	11,033	117,519	Ataran forest.
		Padauk logs ...	315	11,244	
		Thitka logs ...	77	5,712	
		Thitgado logs ...	1	50	
		Pyinma logs ...	361	18,264	
		Thitya logs ...	7	258	
		Ingyin logs ...	46	1,490	
		Padauk branches ...	246	415	
		Coco ...	...	81	Excess found in remeasuring.
		Total Ataran ...	12,686	155,033	
SOUTH TENASSERIM ...	Tavoy ...	Thitka logs ...	56	3,579	
		Teak (drift) ...	6	276	
		Kanzo do. ...	3	210	
		Thingan logs ...	117	5,591	
		Do. (drift) ...	1	18	
		Tagu (do.) ...	2	80	
		Zinbyun (do.) ...	1	13	
		Padauk logs ...	38	2,451	
		Pyinma ...	77	5,308	
		Pyingado sleepers, large ...	3,888	11,546	
		Ditto, small ...	11,166	15,043	
		Pyingado scantlings ...	887	401	
		Yamane (drift) ...	1	53	
		Kyabè (do.) ...	1	42	
		Taget (do.) ...	1	38	
		Total Tavoy ...	16,245	44,639	
	Mergui ...	Teak (drift) ...	2	66	
		Tagu ...	7	...	
		Total Mergui ...	9	66	
		Total South Tenassserim ...	16,254	44,705	
KADO ...	Kado Battery Point	Drift teak ...	7,848	294,016	
		Thitya ...	22	800	
		Pyinma ...	2	65	
		Mango ...	30	1,000	
		Thitgado ...	2	60	
		Thitka ...	2	65	
		Thingan ...	2	60	
		Jungle wood ...	10	200	
		Thitpyu ...	1	30	
		Thitpôk ...	5	150	
		Total Kado ...	7,924	296,536	
		GRAND TOTAL ...	66,341	1,008,065	

FORM No. 60 [PRESCRIBED].—*Statement of Timber and other Produce received from Forests in Sale Depôts during 1883-84*—(continued).

Division	Depot	Produce received. Description.	Number or quantity.	Cubic feet.	Remarks
		Abstract of the Divisions.			
		Teak logs, pieces, and crooks ...	39,851	579,960	
		Thitka logs	244	15,199	
		Thitgado	38	2,275	
		Padauk logs	610	23,504	
		Pyinma logs	1,147	54,609	
		Ingyin logs	47	1,531	
		Padauk branches	246	415	
		Coco	...	81	
		Pyingado sleepers, large... ..	4,038	12,056	
		Teak (drift)	7,856	294,358	
		Kanzo (do.)	3	210	
		Thingan logs	119	5,651	
		Thitpok	5	150	
		Thingan (drift)	1	18	
		Tagu (do.)	9	80	
		Zimbyun (do).	1	13	
		Pyingado sleepers, small ...	11,166	15,043	
		Do. scantlings	887	401	
		Thitpyu	1	30	
		Yamane (drift)	1	53	
		Kyezè (do.)	1	42	
		Tagat (do.)	1	38	
		Mango logs	30	1,090	
		Thitya	29	1,058	
		Jungle wood	10	200	
		GRAND TOTAL ...	66,341	1,008,065	

FORM No. 60 [PRESCRIBED].—*Statement of Timber and other Produce received from Forests in Sale Depôts during 1883-84*—(continued).

Division	Forest.	Description of timber, &c.	Number of Pieces.	Number of Cubic feet.	Total of each division. Pieces.	Total of each division. Cubic feet.	Remarks
		PEGU CIRCLE.					
THARRAWADDY.	Boben ...	Dugyis	116	6,844			
		Hlwazas	870	41,760			
		Yatthits	147	4,704			
	Thonzè ...	Dugyis	226	14,012			
		Hlwazas	620	29,760			
		Yatthits	164	5,248			
	Minhla	Dugyis	672	39,648			
		Hlwazas	669	32,112			
		Yatthits	410	13,530			
		Squares	6	180			
	Gamaung ...	Dugyis	169	9,971			
		Hlwazas	126	6,048			
		Yatthits	360	11,880			
		Yard-pieces	1	102			
	Bilin ...	Dugyis	61	3,599			
		Hlwazas	129	6,192			
		Yatthits	99	3,267			
	Mokka ...	Dugyis	368	21,712			
		Hlwazas	303	14,544			
		Yatthits	90	2,970			
		Yard-pieces	7	102			
		Squares	1	31			
		Kanyin	252	9,744			
	Minbu ..	Dugyis	11	649			
		Hlwazas	296	14,208			
		Yatthits	44	1,408			
	Taungnyo .	Dugyis	859	50,681			
		Hlwazas	1,012	48,576			
		Yatthits	514	6,448			
		Yard-pieces	1	102			
	Paungdè	Hlwazas	200	1,680			
	Taungchaung ...	Dugyis	89	5,241			
		Hlwazas	100	4,800			
		Yatthits	83	2,656			
	Ôkpo ..	Hlwazas	77	693			
	Satpok ...	Hlwazas	10	60			
		Yatthits	140	1,120	9,302	416,302	
		Carried over			9,302	416,302	

FORM No. 60 [PRESCRIBED].—*Statement of Timber and other Produce received from Forests in Sale Depôts during 1883-84*—(continued).

Division.	Forest.	Description of timber, &c	Number of Pieces.	Number of Cubic feet.	Total of each division. Pieces	Total of each division. Cubic feet.	Remarks
		Brought forward ...	...	.	9,302	416,302	
RANGOON.	Pegu ...	Dugyis	53	2,968			
		Hlawzas .. .	20	940			
		Yatthits	3	96			
		Yard-pieces ..	4	408			
		Thitka	1	58			
		Half-profit principle	16	624			
		Half-profit wood, other kinds	36	1,728			
	Paunglin ..	Dugyis	185	10,360			
		Hlawzas	141	6,768			
		Yatthits	19	608			
		Yard-pieces	2	204			
	Zamayi ...	Dugyis	20	1,140			
		Hlawzas	807	37,929			
		Yatthits	59	1,888			
		Rejected	20	800			
		Thitka	1	58			
		Pyinma .	144	5,040			
	Tukaw & Kwekaw	Dugyis	4	224			
		Hlawzas	340	15,980			
		Yatthits	16	512			
		Rejected	16	640			
	Hugatpyawdônwa stream	Dugyis	1	56			
		Hlawzas	316	14,852			
		Yatthits	2	64			
		Rejected .. .	8	328			
	Wapyu ...	Dugyis . ..	12	672			
		Hlawzas	142	6,674			
		Yatthits	10	320			
		Rejected	8	320			
	Wadla Paunglin ...	Titka	49	2,842			
	Wunchaungwa	Hlawzas	35	1,645			
		Rejected	2	80			
	Thêmê ...	Dugyis . ..	1	56			
		Hlawzas	145	6,815			
		Yatthits ..	11	352			
	Kyunwi .	Dugyis	2	112			
		Hlawzas . .	324	15,228			
		Yatthits	3	96			
		Rejected	17	680			
	Kadat ...	Dugyis	4	224			
		Hlawzas	85	3,995			
		Yatthits	5	160			
		Rejected	4	160			
	Pyinma stream	Dugyis . .	79	4,424			
		Hlawzas . ..	176	8,272			
		Yatthits	10	320			
		Yard-pieces .. .	3	306			
	Ôkkan .	Dugyis ..	6	336			
		Hlawzas	136	6,392			
		Yatthits .	8	256			
		Squares	1	30			
		Pyinma scantlings	4,802	7,193			
					8,317	172,243	
PROME	Bulè	Dugyis	105	5,880			
		Hlawzas	40	1,880			
		Yatthits	30	960			
	Nawin	Dugyis	651	36,456			
		Hlawzas	424	19 928			
		Yatthits	97	3,104			
	Rangoon ...	Dugyis	849	47,544			
		Hlawzas	452	21,244			
		Yatthits	166	5,312			
		Yard-pieces	25	1,530			
		Mast-piece	1	150			
					2,840	143,088	
TOUNGOO	Thaung ..	Dugyis	8	448			
		Hlawzas	23	1,081			
	Swa ...	Dugyis .	42	2,352			
		Hlawzas .	83	3,984			
		Yatthits	2	64			
		Yard-piece .	1	102			
		Forty per cent.	598	28,106			
		Thitka . ..	1	58			
		Pyinma .	1	35			
		Carried over	759	36,230	20,459	732,523	

FORM No. 60 [PRESCRIBED].—*Statement of Timber and other Produce received from Forests in Sale Depôts during 1883-84*—(continued).

Division.	Forest.	Description of timber, &c.	Number of Pieces.	Number of Cubic feet.	Total of each division. Pieces.	Total of each division. Cubic feet.	Remarks
		Brought forward ...	...	...	20,459	732,528	
TOUNGOO—(concluded).	Kabaung ...	Dugyis	726	40,656			
		Hlawzas	609	32,112			
		Yatthits	93	2,976			
		Yard-pieces	22	2,241			
	Binbyè ...	Dugyis	2	112			
		Hlawzas	5	235			
		Half-profit principle	113	4,407			
		Pyinma	8	280			
	Myohla ...	Half-profit principle	10	390			
		Two-fifths per cent.	23	1,173			
		Forty per cent.	825	38,775			
		Pyinma	18	630			
	Thaukyegat ...	Half-profit principle	24	936			
		Forty-five per cent.	1,463	61,416			
	Gwetho ...	Dugyis	3	168			
		Hlawzas	11	517			
		Half-profit principle	1	39			
		Forty per cent.	67	3,149			
	Pathi ...	Thitka	51	2,958			
	Kanni ..	Dugyis	2	112			
		Hlawzas	31	1,457			
		Two-fifths per cent.	77	3,850			
		Thitka	143	8,294			
	Kunaung ...	Dugyis	1	56			
		Hlawzas	9	423			
		Half-profit principle ...	6	234			
	Yaukthawa ...	Forty per cent.	330	15,510			
	Minyè ...	Half-profit principle	30	1,170			
	Mehaw ...	Half-profit principle	10	390			
	Kyônkinatsin ...	Half-profit principle	1,175	45,825			
	Yanè ...	Dugyis	3	168			
		Hlawzas	8	376			
		Pyinma	3	105			
	Donulangya ...	Forty per cent	199	9,353			
	Saing ...	Dugyis	252	14,112			
		Hlawzas	229	10,763			
		Yatthits	6	192			
		Pyingado telegraph posts ...	122	637	7,520	342,460	
SHWE-GYIN.	Kawliya ...	Half-profit principle	524	20,436			
		Thitka	60	3,480			
		Pyinma	9	315	593	24,231	
AGENCY.	.....	Padauk	11	25			
		Pyingado sleepers	6,811	9,081			
		Do. scantlings	187	532	7,009	9,638	
RANGOON.	Drift timber ...	Dugyis	70	3,250			
		Hlawzas	115	4,658			
		Short pieces	40	2,158			
		Yatthits	31	1,834			
		Yard-pieces	6	216			
		Squares	3	108			
		Thitka and Do	9	324			
		Pyinma	39	2,122			
		Kanyin	73	2,990			
		Woods	29	1,419	415	19,279	
SHWEGYIN.	Drift timber ...	Dugyis	82	3,670			
		Hlawzas	257	9,970			
		Short pieces	32	1,511			
		Yatthits	26	1,295			
		Thitka and Do	126	5,254			
		Pyinma	142	5,830			
		Kanyin	3	108			
		Woods	79	3,562	747	31,200	
WESTERN.	Drift timber ...	Dugyis	46	2,623			
		Hlawzas	85	2,007			
		Short pieces	2	112			
		Yatthits	17	952			
		Yard-pieces	2	112			
		Woods	1	57	103	5,863	
		Carried over ..	...	...	36,855	1,165,194	

FORM No. 60 [PRESCRIBED].—*Statement of Timber and other Produce received from Forests in Sale Depôts during 1883-84*—(concluded).

Division	Forest	Description of timber, &c	Number of Pieces.	Number of Cubic feet	Total of each division Pieces	Total of each division Cubic feet	Remarks
		Brought forward			36,855	1,165,194	
Agency Office	Drift timber	Dugvis	205	9,020			
		Hlawzas	307	13 508			
		Short pieces	84	3,696			
		Yatthits	87	3,828			
		Yard-pieces	8	352			
		Squares	43	1,892			
		Thitka and Do	35	1,540			
		Pyinma	20	880			
		Kanyin	2	88			
		Woods	16	704	807	35,514	
Western	Bapein	Teak	516	14,200			
		Pyingado	149	4,266			
		Kashit	45	1,738			
		Pyinma	78	117			
		Pyingado / Telegraph posts	500	3,505			
	Varwu	Drift teak	308	13,506	1,596	37,352	
		GRAND TOTAL	..		39,258	1,238,060	
		Abstract of the several Divisions					
		Teak logs	24,840	1 134,696			
		Do squares	54	2,241			
		Kanyin logs	830	12,930			
		Thitka	476	24,866			
		Half-profit principle, other kinds	36	1,728			
		Pyinma	462	15,354			
		Pyingado scantlings	4 989	7 725			
		Do sleepers	6,811	9,081			
		Do telegraph posts	622	4,142			
		Kashit logs	45	1,738			
		Padauk log-ends	11	25			
		Pyingado logs	149	4,286			
		Various	125	5,742			
		Drift teak logs	308	13 506			
		Total	39,258	1,238,060			

FORM No. 61.—*Sale of Timber and other Produce cut and collected by Government agency during 1883-84.*

Division.	Depôt or locality.	Produce sold. Description.	Number or quantity.	Cubic feet.	Remarks.
		TENASSERIM CIRCLE.			
		Sold from depots.			
SALWEEN	Kado and Battery Point depôts.	Teak pieces and crooks	5,802	49,684	Lower Salween forests.
		Do. crooks	452	4,740	Kolun forest.
		Do. logs	40	2,396	Foreign.
		Ditto	21	1,294	Drift logs.
		Thitgado logs	15	1,156	
		Thitka do.	52	2,378	
		Pyinma do.	157	4,996	
		Teak squares	455	16,603	
		Do planks, &c.	74 tons	3,708	
		Pyinma scantlings	1 ton	60	
		Pinle kanzo scantlings		11	
		Teak shingles	25,500	424	
		Pyingado sleepers, large	330	1,145	
		Ditto small	35	49	
		Teak log-ends	70	...	
		Total ...	33,004	88,644	
EAST SALWEEN ...	Ditto ...	Teak logs and pieces	5,498	222,170	Thaungyin.
		Teak pieces and crooks	1,721	21,280	Hlaingbwé.
		Thitgado logs	14	913	
		Thitka do.	32	2,182	
		Padauk do.	229	8,781	
		Pyinma do.	351	16,470	
		Thingan hull	1	138	
		Total ..	7,846	271,934	
WEST SALWEEN ...	Ditto ...	Teak logs	102	5,800	Méthalauk.
		Ditto pieces and crooks ..	9,982	87,347	Dôndami.
		Ditto ditto ditto .	8,391	50,020	Yunzalin.
		Thitgado logs	40	1,899	
		Thitka do.	25	1,283	
		Pyinma do.	243	10,213	
		Pyingado sleepers ..	10	35	
		Total ...	18,793	156,507	
ATARAN	Ditto .	Teak logs, pieces, and crooks ...	10,579	110,513	Atarau.
		Thitgado logs	1	56	
		Thitka do.	96	6,991	
		Padauk do.	286	10,012	
		Pyinma do . ..	361	18,327	
		Ingyin do.	75	2,870	
		Pyingado do.	7	168	
		Kaunghmu do.	7	244	
		Thingan do	25	876	
		Sit do.	8	208	
		Coco do.	12	356	
		Padauk branches	246	415	
		Do planks	3 tons	155	
		Do log-ends	220	...	
		Total ...	11,926	1,50,691	
SOUTH TENASSERIM.	Linzeik ...	Thingan logs . ..	25	858	
		Kanzo do.	34	1,402	
		Che do.	1	28	
		Kyeze do.	17	495	
		Karawe do.	18	474	
		Anan do.	10	316	
		Pyingado do.	9	136	
		Kamaung do.	37	2,760	
		Thitka do. .. .	16	965	
		Tagu do. ..	1	35	
		Pyingado sleepers, large	4,058	12,567	
		Ditto, small	10,331	13,618	
		Magalo	20	574	
		Manthin	17	536	
		Thitka	37 tons	1,866	
	Nauklé depôt ...	Teak drift	2 "	66	Sold to Mr. Foucar.
		Total .	14,633	36,696	
KADO	Kado and Battery Point	Drift logs, teak	3,652	111,130	
		GRAND TOTAL ...	84,854	815,602	
		Sold locally.			
SALWEEN .	.....	Pyingado posts	24	66	
WEST SALWEEN	.... .	Pyinma logs	1	46	
ATARAN	....	Thabye	6	300	
SOUTH TENASSERIM	Commercial wharf ...	Teak drift	9	447	
	Tavoy do ...	Thitka	5	300	
	Do do. .	Pyingado	1	21	
	Mergui	Tagu	7	Unknown.	
KADO	Seashore	Sea drift timber	101	3,808	
		Total ..	154	4,988	

FORM No. 61.—*Sale of Timber and other Produce cut and collected by Government agency during 1883-84*—(continued).

Division.	Depôt or locality.	Produce sold. Description.	Number or quantity.	Cubic feet.	Remarks
		TENASSERIM CIRCLE—(*concld*).			
		ABSTRACT OF THE SEVERAL DIVISIONS.			
		Sold from Depôts.			
		Teak logs, pieces, and crooks ...	37,527	551,554	
		Foreign teak	40	2,396	
		Drift logs, teak	3,673	112,424	
		Thitgado logs	70	3,934	
		Thitka logs	258	15,665	
		Pyinma logs	1,112	50,006	
		Padauk logs	515	18,793	
		Teak squares	455	16,603	
		Do planks	74	3,708	
		Pyinma scantlings	1	60	
		Pinlè kanzo scantlings	.....	11	
		Teak shingles	25,500	424	
		Pyingado sleepers, large	4,998	13,747	
		Ditto ditto, small	10,366	13,667	
		Teak log-ends	70	....	
		Thingan hull	1	138	
		Ingyin logs	75	2,370	
		Pyingado ditto	16	304	
		Kaunghnu ditto	7	244	
		Thingan ditto	50	1,734	
		Sit ditto	8	208	
		Coco ditto	12	356	
		Padauk branches	246	415	
		Do. planks	3	155	
		Do. log ends	220	.....	
		Kanzo logs	34	1,402	
		Che do.	1	28	
		Kyayzi do.	17	495	
		Karawe do.	18	474	
		Anan do.	10	316	
		Kamaung do.	37	2,760	
		Tagu do.	1	85	
		Mézali do.	20	574	
		Manthin do.	17	536	
		Teak drift	2	66	
		Total ...	84,854	815,602	
		Sold locally.			
		Pyingado posts	24	66	
		Pyinma logs	1	46	
		Thabyo	6	300	
		Teak drift	9	447	
		Thitka	5	300	
		Pyingado	1	21	
		Tagu	7	Unknown.	
		Sea-drift timber	101	3,808	
		Total ...	154	4,988	

FORM No. 61.—*Sale of Timber and other Produce cut and collected by Government agency during 1883-84.*

Division.	Depôt or locality.	Produce sold. Description.	Number or quantity.	Cubic feet.	Number or quantity.	Cubic feet.
		PEGU CIRCLE.				
		PART I.				
		Sold from Depôts				
AGENCY	.	Teak logs	21,854	1,049,934		
		Do. sleepers	8	12		
		Thitka logs	98	5,710		
		Kanyin do.	252	9,744		
		Padauk do	11	25		
		Pyingado sleepers	6,811	9,081		
		Ditto scantlings	4,989	7,725		
		Ditto telegraph posts	122	637		
		Other kinds, logs	65	3,167		
		Teak drift do.	1,281	58,926		
		Other kinds, do.	506	21,920		
		Teak sea-drift	95	3,976		
					36 092	1,170,857
		Carried over ...	...	...	36,092	1,170,857

FORM No. 61.—*Sale of Timber and other Produce cut and collected by Government Agency during 1883-84*—(concluded).

Division.	Depot or locality.	Produce sold. Description.	Number or quantity	Cubic feet.	Number or quantity.	Cubic feet.
		Brought over ..	...	..	36,092	1,170,857
		PEGU CIRCLE—(concluded).				
		PART I—(concluded).				
		Sold from Depôts—(concluded).				
WESTERN ...	...	Teak logs	516	14,200		
		In do.	580	23,862		
		Kanyin do.	154	6,034		
		Thitto do.	93	3,752		
		Pyingado do.	186	4,516		
		Kyettuyweza	6	252		
		Thitpyu	8	456		
		Kashit	45	1,738		
		Pyingado telegraph posts	500	3,050		
		Teak drift logs	393	17,926	2,481	75,786
		Total Part I ...	.....	. ...	38,573	1,246,643
		PART II.				
		Sold locally.				
THARRAWADDY ...	.....	Teak logs	976	44,896		
		Do. drift	1	46	977	44,942
PROME ...	. .	Teak logs	616	28,330		
		Thitya do.	4	140		
		In do.	4	140		
		Pyingado do.	157	5,495		
		Teak drift logs	17	782	798	34,893
TOUNGOO ..	. ...	Teak logs	1,355	27,922		
		Do. drift logs	98	2,802		
		Other kinds, drift	70	2,450		
		Ditto, waif	2	80	1,525	33,254
SHWEGYIN ..	.....	Teak logs (half-profit principle) ...	605	27,830		
		Do. sleepers	3,000	4,500		
		Other kinds, logs	44	2,050		
		Ditto (half-profit principle)	43	1,505		
		Sleepers, other kinds	17,868	26,802		
		Teak drift logs, (half-profit principle)	46	2,116		
		Teak drift	1	46		
		Other kinds drift...	88	3,287	21,695	68,136
WESTERN ...	.....	Teak logs	31	1,426	31	1,426
RANGOON .	. ..	Do. do.	124	5,704		
		Do. poles, drift...	1	8		
		Other kinds, logs...	116	4,060		
		Ditto, drift	1	35	242	9,807
		Total Part II ...	.....	.....	25,268	192,458
		Total Parts I and II ...	.....	.. ...	63,841	1,439,101
		Abstract of Depôt Sales.				
		Teak logs	22,370	1,064,134		
		Do. sleepers	8	12		
		Pyingado sleepers	6,811	9,081		
		Do. logs	186	4,516		
		Do. scantling	4,989	7,725		
		Do. telegraph posts... ...	622	3,687		
		Kanyin logs	406	15,778		
		Thitka do.	98	5,710		
		Padauk do.	11	25		
		In do.	580	23,862		
		Thitto do.	93	3,752		
		Kyetywè do.	6	252		
		Thitpyo do.	8	456		
		Kashit do.	45	1,738		
		Various	65	3,107		
		Teak drift	1,074	76,852		
		Other kinds, drift	506	21,920		
		Teak, sea drift	95	3,976		
		Total Part I ..	38,573	1,246,643		
		Abstract of Local Sales.				
		Teak logs	3,102	108,284		
		Do. sleepers	3,000	4,500		
		Teak logs (half-profit principle) ...	605	27,830		
		Theyn do.	4	140		
		In do.	4	140		
		Pyingado logs	157	5,495		
		Other kinds (half-profit principle) ...	43	1,505		
		Other kinds, logs	160	6,110		
		Ditto, sleepers	17,868	26,802		
		Teak poles, drift	1	8		
		Do. logs, do.	117	3,676		
		Do. do. do. (half-profit principle).	46	2,116		
		Other kinds	161	5,852		
		Total Part II ...	25,268	192,458		
		Total Parts I and II ..	63,841	1,439,101		

ANNUAL FORM No. 62 [PRESCRIBED].—*Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during 1883-84.*

Particulars.	Number or quantity.	Cubic feet.	Total of each head: Number or quantity.	Total of each head: Cubic feet.
TENASSERIM CIRCLE.				
Balance at the commencement of the year.				
Salween division.				
Pyinma logs ...	42	633		
Pyingado logs ..	8	135		
Do sleepers, large	330	1,145		
Pyingado sleepers, small	273	324		
Thitka sleepers ...	8	27		
Pyingado planks Tons	33	1,662		
Pyinma do. „	40	2,018		
Pinlè-kanzo scantlings	...	11		
			734	5,955
East Salween division.				
Teak logs, thaungyin .	1	101		
Padauk logs . .	85	1,400		
Pyinma do.	2	74		
Pyingado logs ..	5	97		
Thingan boat-hulls ...	4	404		
			97	2,076
West Salween division.				
Pyingado logs ...	11	142		
Thitka do. ...	40	1,809		
			51	1,951
Atavan division.				
Padauk logs ..	78	1,675		
Pyinma do. .	10	363		
Thitka do. ...	22	1,471		
Pyingado logs	31	771		
Petwun do. ...	25	507		
Thingan do. ...	25	876		
Sit do. ..	14	323		
Ingyin do. ...	77	2,193		
Kôkko do.	12	275		
Kaunghmu do.	7	244		
Thitya	48	1,795		
Yamane ...	14	529		
Padauk planks Tons	39	1,957		
			402	12,979
South Tenasserim division.				
Teak logs	4	223		
Pyinma logs ...	20	577		
Thitka do. ...	33	2,242		
Thingan do. ...	18	485		
Kanzo do. ...	33	1,203		
Pyingado	10	157		
Anan logs	21	663		
Manthin logs ...	17	536		
Kyanzi	19	553		
Che	22	637		
Yamane	18	553		
Karani	18	462		
Magala ...	20	574		
Pyingado sleepers, large	1,688	5,862		
Pyingado sleepers, small	100	150		
Pyingado scantlings ...	7	352		
Thitka do	37	1,866		
			2,085	17,155
Kado division.				
Drift timber	1,948	77,139		
Foreign teak	11,367	622,630		
Do woods other than teak	9	485		
British teak	1,835	92,751		
Do. woods other than teak	621	37,510		
			15,780	824,515
Total Balance ..	...	...	19,149	864,031
Received from the Forests in Depôts.				
Teak logs, pieces, and crooks .	39,859	580,302		
Thitka logs	242	15,134		
Thitgado logs	36	2,215		
Padauk do. ...	610	24,504		
Pyinma do ..	1,145	54,544		
Ingyin do. ...	47	1,531		
Thitka ..	7	258		
Padauk branches	246	415		
Kôkko logs ..	.	81		
Kanzo	8	210		
Thingan	118	5,609		
Tagu	9	80		
Zinbyun ..	1	13		
Pyingado sleepers, large	4,038	12,056		
Ditto, small .	11,166	15,043		
Pyingado scantlings .	887	401		
Yamane, drift . .	1	53		

Particulars.	Number or quantity.	Cubic feet.	Total of each head: Number or quantity.	Total of each head: Cubic feet
Timber removed by purchasers from depôts.				
Teak logs, pieces, and crooks	37,588	555,244		
Thitgado logs ..	70	3,934		
Thitka do. . .	221	13,799		
Do. ... Tons	37	1,866		
Padauk logs	515	18,793		
Pyinma do.	1,149	52,766		
Ingyin do	75	2,870		
Kaunghmu logs ...	7	244		
Thingan do. ..	50	1,734		
Sit do. ...	8	208		
Pyingado do. ...	16	304		
Kôkko do. ...	12	356		
Padauk branches ...	246	415		
Thingan hulls	1	138		
Teak squares	455	16,603		
Pyingado sleepers, large .	4,398	13,747		
Ditto, small .	10,366	13,667		
Teak planks, &c. Tons	74	3,708		
Teak shingles ... No	25,500	424		
Pyinma scantlings, Tons	1	60		
Padauk planks „	3	155		
Pinlè-kanzo scantlings ..	.	11		
Teak log-ends No.	70	...		
Padauk log-ends „	220	...		
Kanzo logs	34	1,402		
Che do.	1	28		
Kyezô do.	17	495		
Karawè do.	18	474		
Anan do.	10	316		
Tagu do.	1	35		
Magalè do.	20	574		
Manthin logs	17	536		
Teak drift	3,054	111,190		
			84,854	815,002
Sold locally.				
Teak drift	110	4,255		
Pyingado posts ...	24	66		
Pyinma logs	1	46		
Thabya do.	6	300		
Thitka do.	5	300		
Pyingado do.	1	21		
Tagu do.	7	...		
			154	4,988
Number of logs cleared up to date on payment of duty from depôts.				
Foreign teak ..	128,711	7,148,440		
Foreign woods other than teak	55	2,750		
British teak	5,656	186,648		
British woods other than teak .	1,140	62,609		
			135,562	7,400,447
Number of drift logs delivered to claimants on payment of salvage .	4,048	171,510		
			4,048	171,510
Transferred to Salween division for conversion	418	21,065		
			418	21,065
Converted in depôts.				
Thaungyin logs, teak	24	809		
Mêthalauk do. ...	82	6,972		
Drift do. ...	377	18,850		
Pyinma logs	10	300		
			493	27,021
Lost or written off as useless.				
Ingyin logs	3	80		
Loss in cutting of teak squares	...	3,148		
			3	3,228
Used by the Department.				
Karani	1	14		
Anan	1	31		
Pyingado logs	33	673		
Ingyin do. .	19	370		
Thitya do. ..	47	1,749		
Pyingado planks Tons	25	1,233		
Pyinma do. „	40	2,013		
Padauk do. „	6	297		
Teak scantlings ...	4	178		
Pyinma do.	2	79		
			178	6,642

ANNUAL FORM No. 62 [PRESCRIBED].—*Account of Timber and other Produce cut or collected by Government Agency, &c.*—(continued).

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
TENASSERIM CIRCLE— *(concld).*				
Kyaze, drift	1	42		
Tagat, do.	1	38		
Number of logs entered during 1883-84.				
Foreign teak	161,751	8,470,040		
Do. woods, other kinds	73	3,650		
British teak ...	6,880	160,002		
Do. woods, other kinds	593	26,650		
Number of drift logs brought into depots ..	7,924	296,536	237,647	9,669,407
Received from the forests and sold locally.				
Pyingado posts ..	24	66		
Pyinma logs	1	46		
Thabye do.	6	300		
Drift logs, teak	101	3,808	132	4,220
Received by conversion in depôts.				
Teak squares ..	455	19,751		
Do. planks, &c. Tons	78	3,904		
Pyinma scantlings ...	4	204		
Teak shingles	25,500	424		
Log-ends	290	...	26,327	24,283
Received by transfer from Kado Revenue Division.				
Drift logs	398	20,144	398	20,144
GRAND TOTAL ...	...	...	283,653	10,582,685
PEGU CIRCLE.				
Opening balance.				
Agency—				
Teak logs	14,486	709,171		
Do. sleepers ...	65	97		
Thitka logs ...	40	2,000		
Other kinds, various ...	29	1,044		
Teak drift, logs ..	596	24,153		
Other kinds, logs ...	3	105	15,219	736,570
Tharrawaddy—				
Teak logs	2,416	123,226		
Do. drift	28	1,064	2,444	124,290
Prome—				
In logs	222	6,770		
Thaya and ingyin ...	290	8,952	512	15,722
Western—				
Kanyin	154	6,033		
Thitto	93	3,752		
In	580	23,862		
Pyingado	56	551		
Kyettuywe	6	252		
Thitpyu	8	456		
Teak drift	191	7,258		
Other kinds, drift ...	5	175	1,093	42,339
Rangoon—				
Kanyin	189	9,560	189	9,560
Toungoo—				
Teak logs	870	44,714		
Thitka do.	174	8,700		
Kanyin do.	23	920		
Pyinma do.	116	3,596		
Teak drift, logs ...	59	2,242		
Other kinds, do. ...	8	280	1,250	60,452
Shwegyin—				
Teak logs	13	663		
Do. sleepers ...	3,000	4,500		
Other kinds, sleepers ...	24,000	36,000		
Teak drift, logs ..	537	20,406		
Other kinds, drift logs...	662	23,170	28,212	84,739
Total balance ..	...	...	48,919	1,073,672

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
TENASSERIM CIRCLE— *concluded.*				
Balance at close of the year.				
Salween division.				
Teak logs, foreign ...	1	115		
Teak crooks, Lower Salween	458	2,748		
Pyingado sleepers, small	238	275		
Thitka sleepers ...	8	27		
Pyingado planks ...	8	429		
Pyinma scantlings ...	1	65		
Teak scantlings ...	...	18	714	3,677
East Salween division.				
Teak logs and pieces, Thaungyin ...	143	5,048		
Padauk logs ...	113	2,428		
Thitgado	6	90		
Thingan boat-hulls ...	3	266	265	7,832
West Salween division.				
Teak logs	3	209		
Teak pieces and crooks	520	3,120		
Pyingado sleepers, large	140	485	663	3,814
Ataran division.				
Teak logs, pieces, and crooks	1,054	7,000		
Padauk logs	107	2,907		
Thitka do.	3	192		
Sit do.	6	115		
Ingyin do.	27	904		
Yamane do.	14	529		
Thitya do.	8	304		
Petwun do.	25	507		
Pyingado logs ...	15	304		
Padauk planks Tons	30	1,505	1,289	14,267
Kado division.				
Drift timber ...	1,754	63,970		
Foreign teak ...	44,407	1,944,230		
Do. woods, other kinds	27	1,385		
British teak ..	5,068	66,104		
Do. woods, other kinds	74	1,551	51,330	2,077,240
South Tenasserim division.				
Teak logs	1	52		
Pyinma logs ...	60	3,125		
Thitka do. ...	68	4,556		
Kanzo do. ...	2	71		
Anan do. ...	10	316		
Kyaze do. ...	3	100		
Che do. ...	21	609		
Yamane do. ...	18	580		
Thingan do. ...	111	5,296		
Tagu do. ...	1	45		
Zinbyun do. ...	1	13		
Padauk do. ...	38	3,451		
Tagat do. ...	1	38		
Pyingado sleepers, large	1,518	5,155		
Do. do., small	935	1,252		
Do. scantlings ...	887	401		
Do. do. Tons	7	352	3,682	25,352
GRAND TOTAL ...	...	...	283,653	10,582,685
PEGU CIRCLE.				
Removed by purchasers from depôts.				
Teak logs	22,370	1,064,134		
Do. sleepers	8	12		
Thitka logs	143	7,448		
Kanyin do.	406	15,778		
In do.	580	23,862		
Pyingado	186	4,516		
Do. sleepers ...	6,811	9,081		
Do. scantlings ...	4,980	7,725		
Do. telegraph posts ...	622	3,687		
Thitto logs	93	3,752		
Kyettuywe logs	6	252		
Thitpyu do.	8	456		
Padauk log-ends	11	25		
Various	65	3,167		
Teak drift, logs	1,769	80,828		
Other kinds, do.	506	21,920	38,573	1,246,043

ANNUAL FORM No. 62 [PRESCRIBED].—*Account of Timber and other Produce cut or collected by Government Agency, &c.*—(concluded).

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
PEGU CIRCLE—(concld.)				
Received from forests by extraction.				
Teak logs	24,439	1,089,194		
Other kinds	6,783	237,405		
			31,222	1,326,599
Received from forests and sold locally.				
Teak logs	2,352	108,192		
Pyingado logs	157	5,495		
Kanyin do.	116	4,060		
			2,625	117,747
Drift collected in various divisions and disposed of locally during 1883-84.				
Teak logs	5,951	259,736		
Other kinds	423	14,805		
			6,374	274,541
Collected by Agency.				
Other kinds, sleepers ...	6,811	9,061		
Ditto scantlings ...	4,989	7,725		
Padauk log-ends ..	11	25		
Teak drift	734	22,302		
Other kinds	73	3,212		
			12,618	52,345
Received from forests into depots.				
Teak logs	23,396	1,069,959		
Other kinds, logs ..	1,049	41,766		
Other kinds, telegraph post	622	4,142		
Teak drift, logs	1,072	48,182		
Other kinds, logs ...	501	21,666		
			26,640	1,185,715
Teak logs	514	23,644		
Other kinds	55	1,925		
			569	25,569
GRAND TOTAL ...	...	...	128,967	4,056,188

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
PEGU CIRCLE—(concld.)				
Sold locally.				
Teak logs	3,707	136,114		
Do. sleepers	3,000	4,500		
Kanyin logs	215	8,035		
Pyingado logs	157	5,495		
Pyinma do.	58	2,030		
Thaya do.	4	140		
In do.	4	140		
Other kinds, sleepers ...	17,868	26,802		
Teak drift, logs	164	5,800		
Other kinds, do. ...	91	3,402		
			25,268	192,458
Used by Department.				
Other kinds, logs ...	7	245		
Teak drift, do. ...	6	276		
			13	521
Returned to claimants.				
Teak drift, logs ...	5,267	242,282		
Other kinds, do. ...	18	630		
			5,285	242,912
Written-off, lost, &c.				
Teak logs	13	598		
Other kinds, logs ...	94	3,290		
Teak drift, do. ...	258	11,868		
Other kinds, do. ...	44	1,540		
			409	17,296
Converted locally.				
Pyingado logs ...	6,158	213,595	6,158	213,595
Transferred to depôts.				
Teak logs	23,651	1,087,946		
Other kinds, logs ...	854	29,890		
Teak drift, do. ...	864	39,744		
Other kinds, do. ...	581	20,335		
			25,950	1,177,915
Closing balance.				
Agency—				
Teak logs	15,512	712,784		
Do sleepers ...	57	85		
Thitka logs	248	11,656		
Pyinma do.	183	8,418		
Teak drift, logs ...	217	9,810		
Other kinds, do. ...	59	2,610		
			16,276	745,363
Tharrawaddy—				
Teak logs	2,407	109,730		
Do. scantlings ...	9	8		
Teak drift, logs ...	5	230		
Other kinds, do. ...	12	420		
			2,433	110,388
Prome—				
Teak posts	115	4,600		
In logs	214	7,490		
Thaya and ingyin ...	283	9,905		
Teak drift, logs ...	35	1,604		
Other kinds, do. ...	1	35		
			648	23,634
Western—				
Pyinma logs ...	78	2,705		
Pyingado, do. ...	19	665		
Teak drift, do. ...	48	2,183		
			145	5,553
Toungoo—				
Teak logs	135	6,130		
Pyinma logs	43	1,475		
Kanyin	4	140		
Thitka	30	1,030		
Teak drift	11	506		
			223	9,281
Shwegyin—				
Teak logs	567	25,932		
Other kinds, sleepers .	6,132	9,198		
Teak drift, logs ...	434	19,764		
Other kinds, do. ...	453	15,735		
			7,586	70,629
GRAND TOTAL ...	...	...	128,967	4,056,188

ANNUAL FORM No. 62 [PRESCRIBED].—*Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during 1883-84.*

Particulars.	Tenasserim circle.		Pegu circle.		British Burma.	
	Number or quantity.	Cubic feet.	Number or quantity.	Cubic feet.	Number or quantity.	Cubic feet.
Total in hand at commencement of the year	19,149	864,631	48,919	1,073,672	68,068	1,938,303
Received from forest by extraction.						
Teak logs	...	...	24,439	1,089,194	24,439	1,089,194
Other kinds	...	...	6,783	237,405	6,783	237,405
Total ...	..	...	31,222	1,326,599	31,222	1,326,599
Received from forests in depôts.						
Teak logs	39,859	580,302	23,396	1,069 959	63,255	1,650,261
Other kinds	2,464	104,594	1,049	41,766	3,513	146,360
Do. kinds, telegraph posts ...	...	...	622	4,142	622	4,142
Pyingado sleepers, large ...	4,038	12,056	...	...	4,038	12,056
Do. do., small ...	11,166	15,043	...	...	11,166	15,043
Do. scantlings	887	401	...	...	887	401
Teak drift, logs	...	...	1,072	48,182	1,072	48,182
Other kinds, do.	3	133	501	21,666	504	21,799
Total ...	58,417	712,529	26,640	1,185,715	85,057	1,898,244
Received from forests and sold locally.						
Teak logs	...	...	2,352	108,192	2,352	108,192
Pyingado posts and logs ...	24	66	157	5,495	181	5,561
Other kinds, logs	7	346	116	4,060	123	4,406
Teak drift, do.	101	3,808	...	...	101	3,808
Total ...	132	4,220	2,625	117,747	2,757	121,967
Received by conversion in depôts						
Teak squares	455	19,751	...	...	455	19,751
Do. planks, &c. ... Tons	78	3,904	...	...	78	3,904
Pyinma scantlings	4	204	...	...	4	204
Teak shingles	25,500	424	...	...	25,500	424
Log-ends	290	...	...	...	290	...
Total ...	26,327	24,283	...	...	26,327	24,283
Drift collected in various divisions and disposed of locally.						
Teak logs	...	...	5,951	259,736	5,951	259,736
Other kinds	...	...	423	14,805	423	14,805
Total ...	...	...	6,374	274,541	6,374	274,541

Particulars.	Tenasserim circle.		Pegu circle.		British Burma.	
	Number or quantity	Cubic feet.	Number or quantity.	Cubic feet.	Number or quantity.	Cubic feet.
Removed by purchasers from depots.						
Teak logs, &c.	37,588	555,244	22,370	1,064,134	59,958	1,619,378
Do. sleepers	...	...	8	12	8	12
Do. squares	455	16,603	...	...	455	16 603
Do. planks ... Tons	74	3,708	...	...	74	3,708
Do. shingles	25,500	424	.	...	25,500	424
Do. log-ends	70	...	...	...	70	...
Other kinds, logs	2,278	100,924	1,487	59,231	3,765	159,465
Ditto, sleepers ...	14,764	26,765	6,811	9,061	21,575	35,496
Ditto, scantlings ...	1	71	4,969	7,725	4,990	7,796
Ditto, telegraph posts ...	...	...	622	3,687	622	3,687
Ditto, branches ...	246	415	...	...	246	415
Ditto, boat-hulls ...	1	138	...	...	1	138
Ditto, log-ends ...	220	...	11	25	231	25
Ditto, planks ...	3	155	...	...	3	155
Teak drift	3,654	111,196	1,769	80,828	5,423	192,024
Other kinds, drift	...	...	506	21,920	506	21,920
Total ...	84,854	515,602	38,573	1,246,643	1,23,427	2,062,245
Sold locally.						
Teak logs	...	...	3,707	136,114	3,707	136,114
Ditto, sleepers	...	...	3,000	4,500	3,000	4,500
Other kinds, logs	20	667	438	15,840	458	16,507
Ditto, sleepers ...	...	...	17,868	26,802	17,868	26,802
Ditto, posts ...	24	66	...	..	24	66
Teak drift, logs	110	4,255	164	5,800	274	10,055
Other kinds, do.	...	...	91	3,402	91	3,402
Total ...	154	4,988	25,268	192,458	25,422	197,446
Used by Department.						
Teak scantlings	4	178	...	...	4	178
Other kinds, scantlings ...	2	79	...	...	2	79
Ditto. logs	101	2,837	7	245	108	3,082
Ditto, planks	71	3,548	...	...	71	3,548
Teak drift-logs	...	.	6	276	6	276
Total ...	178	6,642	13	521	191	7,163
Returned to claimants.						
Teak drift logs ... } Other kinds, do. ... }	4,048	171,510	{ 5,267 / 18	2,42,282 / 630 }	9,333	414,422
Total ...	4,048	171,510	5,285	2,42,912	9,333	414,422

ANNUAL FORM No. 62 [PRESCRIBED].—*Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during 1883-84*—(concluded).

Particulars.	Tenasserim circle.		Pegu circle.		British Burma.	
	Number or quantity.	Cubic feet.	Number or quantity.	Cubic feet.	Number or quantity.	Cubic feet.
PEGU CIRCLE—concluded.						
Collected by agency.						
Other kinds, sleepers	...	...	6,811	9,081	6,811	9,081
Ditto. scantlings	...	...	4,969	7,725	4,969	7,725
Padauk log-ends	...	...	11	25	11	25
Teak drift logs	...	...	734	32,302	734	32,302
Other kinds, do	...	...	73	3,212	73	3,212
Total ...	...	...	12,618	52,345	12,618	52,345
Received by transfer from Kado Revenue Division.						
Drift logs	398	20,144	...	...	398	20,144
Excess by transit.						
Teak logs	...	...	514	23,644	514	23,644
Other kinds	...	...	55	1,925	55	1,925
Total .	...	...	569	25,569	569	25,569
Number of logs entered during 1883-84.						
Foreign teak	161,751	8,470,040	...	...	161,751	8,470,040
Ditto, other kinds ...	73	3,650	...	...	73	3,650
British teak	8,889	160,002	...	...	8,889	160,002
Ditto other kinds ...	593	26,650	...	...	593	26,650
Total ...	171,306	8,660,342	...	...	171,306	8,660,342
Number of drift logs brought into depots	7,924	296,536	..	...	7,924	296,536
Total ...	283,653	10,582,685	128,967	4,056,188	412,620	14,638,873

Particulars.	Tenasserim circle.		Pegu circle.		British Burma.	
	Number or quantity.	Cubic feet.	Number or quantity.	Cubic feet.	Number or quantity.	Cubic feet.
Written-off, lost, &c.						
Teak logs	...	...	13	598	13	598
Loss in cutting teak squares ...	...	3,148	..	...	...	3,148
Other kinds, logs	3	80	94	3,290	97	3,370
Teak drift, logs	...	...	258	11,868	258	11,868
Other kinds, do.	...	...	44	1,540	44	1,540
Total ...	3	3,228	409	17,296	412	20,524
Converted locally.						
Teak logs	106	7,871	...	...	106	7,871
Other kinds	...	...	6,158	213,595	6,158	213,595
Teak drift	377	18,850	...	...	377	18,850
Other kinds	10	300	...	...	10	300
Total ...	493	27,021	6,158	213,595	6,651	240,616
To Salween division for conversion	418	21,065	...	...	418	21,065
Number of logs closed up to date from depots on payment of duty.						
Teak, foreign	128,711	7,148,440	...	..	128,711	7,148,440
Other kinds, foreign ...	55	2,750	...	...	55	2,750
Teak, British	5,656	186,648	...	...	5,656	186,648
Other kinds, British ...	1,140	62,609	...	...	1,140	62,609
Total ...	135,562	7,400,447	...	...	135,562	7,400,447
Transferred to depôts.						
Teak logs	...	...	23,651	1,087,946	23,651	1,087,946
Other kinds, logs	...	...	854	29,890	854	29,890
Teak drift, do.	...	...	864	39,744	864	39,744
Other kinds, do.	...	...	581	20,335	581	20,335
Total ...	...	...	25,950	1,177,915	25,950	1,177,915
Closing balance.						
Foreign teak logs	44,408	1,944,345	...	...	44,408	1,944,345
British do.	5,068	66,104	...	...	5,068	66,104
Teak sleepers	...	...	57	85	57	85
British, other kinds	74	1,551	...	...	74	1,551
Teak logs, sleepers, and crooks	2,179	18,177	18,736	859,176	20,915	877,353
Teak scantlings	...	18	9	8	9	26
Other kinds, logs, foreign ...	27	1,385	...	...	27	1,385
Ditto, logs ...	658	26,420	1,102	43,484	1,760	69,904
Ditto, sleepers ...	2,839	7,194	6,132	9,198	8,971	16,392
Ditto, planks ...	38	1,934	...	...	38	1,934
Ditto, scantlings ...	895	818	...	..	895	818
Ditto, boat-hulls ...	3	266	...	..	3	266
Teak drift	1,754	63,970	750	34,097	3,029	116,867
Other do.			525	18,800		
	57,943	2,132,182	27,311	964,848	85,254	3,097,030
Total ...	283,653	10,582,685	128,967	4,056,188	412,620	14,638,873

FORM No. 63.—*Timber and other Produce cut, collected, and removed from the Forests by Consumers or Purchasers during the year 1883-84.*

Division.	Produce removed. Description.		No. or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
				Rs.	Rs.	
SALWEEN ...	Pyinma	Logs.	352	2,216	...	
	Thingan	"	15	108	...	
	Pyingado	"	39	54	...	
	Mango	"	57	114	...	
	Katswè	"	39	78	...	
	Thitpyu	"	96	125	...	
	In	"	48	93	...	
	Pyingado	"	160	148	.	
	Mango	"	320	525	...	
	Aukchinza	"	51	76	...	
	Thitya	"	475	775	..	
	Katswè	"	466	830	...	
	Pyingado	"	50	4	...	
	Thitpyu	"	18	20	...	
	In	"	241	900	...	
	Kawpin	"	86	127	...	
	Okaw	"	89	150	...	
	Thitsi	"	2	3	...	
	Myautkchaw poles	"	26	2	...	
	Myautkchaw	"	35	35	...	
SALWEEN, PANDAW.	Teak logs	"	6	16	...	
	Teak stems	"	62	35	...	
	Teak crooks	"	4,878	1,220	...	
SALWEEN .	Woods, other kinds	"	...	38	...	
	Total ...		...	7,092	7,092	
EAST SALWEEN.	Pyinma	Logs.	895	5,807	...	
	Thingan	"	22	560	...	
	Thitgado	"	2	22	...	
	Pyingado	"	24	34	...	
	Mango	"	1,322	2,459	...	
	Aukchinza	"	103	175	...	
	Thitya	"	390	547	...	
	Katswè	"	543	1,035	...	
	Thitpyu	"	68	136	...	
	In	"	10	20	...	
	Kawpin	"	42	79	...	
	Okaw	"	13	26	...	
	Thitpôk	"	261	343	...	
	Saingbyu	"	59	118	...	
	Total ...		..	11,361	11,361	
WEST SALWEEN	Pyinma	Logs.	267	2,048	...	
	Thingan	"	15	78	..	
	Pyingado	"	15	15	...	
	Mango	"	50	82	...	
	Katswè	"	40	80	..	
	Pyingado	"	268	289	...	
	Mango	"	183	263	...	
	Thitya	"	1,425	2,021	..	
	Katswè	"	132	205	..	
	Kawpin	"	183	205	..	
	Total ..		.	5,286	5,286	
ATARAN ...	Pyinma	Logs	462	3,044	..	
	Thingan	"	144	1,840	...	
	Kaunghmu	"	26	2,008	...	
	Pyingado	"	195	212	...	
	Mango	"	191	326	...	
	Aukchinza	"	234	430	...	
	Okin	"	8	12	...	
	Thitya	"	87	149	...	
	Katswè	"	183	366	...	
	Pyingado	"	20	2	...	
	Thitpyu	"	72	120	...	
	Katswè	"	30	60	...	
	In	"	58	72	...	
	Kadut	"	1	2	...	
	Pothabye	"	17	21	...	
	Kaupin	"	69	126	...	
	Bouméza	"	50	73	...	
	Panga	"	30	37	...	
	Gyaw	"	2	4	...	
	Kabala	"	52	39	...	
	Pyingado	"	558	690	...	
	Mango	"	422	785	...	
	Aukchinza	"	390	697	...	
	Thitya	"	1,035	1,655	...	
	Katswè	"	1,369	2,363	...	
	Pyingado	"	134	15	...	
	Thitpyu	"	139	204	...	
	In	"	513	711	...	
	Kadut	"	25	37	...	
	Pothabye	"	21	36	...	
	Kawpin	"	325	603	...	
	Kalawe	"	150	290	...	
	Okaw	"	332	532	...	
	Petwun	"	20	20	...	
	Thitsi	"	2	3	...	
	Thitto	"	3	5	...	
	Thitpôk	"	27	44	...	
	Myaw poles	"	5,185	93	...	
	Carried over ...		.....	18,386	...	

FORM No. 63.—*Timber and other Produce cut, collected, and removed from the Forests by Consumers or Purchasers during 1883-84*—(continued).

Division.	Produce removed. Description.		No. or quantity.	Amount of revenue.	Amount actually realized during the year	Remarks
				Rs.	Rs.	
	Brought forward		...	18,386	...	
ATARAN	Thabyu	Logs	90	154	.	
	Taunkanazo	,,	5	7	...	
	Anan	,,	1	1	.	
	Kasi	,,	2	3	...	
	Panga	,,	4	6	...	
	Panthaga	,,	25	37	...	
	Kôkko	,,	1	1	.	
	Madin	,,	1	1	...	
	Myaukchaw poles	,,	25	2	...	
	Sawadaw poles	,,	50	3	...	
	Tharapi poles	,,	25	2	...	
	Kaban	,,	4	8	...	
	Nabé	,,	27	54	...	
	Myautchow	,,	4	3	...	
	Pinnatha	,,	2	3		
	Ingyin	,,	3	6	..	
	Tharapi	,,	1	2		
	Thitni	,,	25	30	.	
	In poles	,,	10	1	...	
	Tain	,,	40	30	...	
	Zinbyun	,,	10	11	..	
	Tein poles	,,	40	3	...	
	Zinbyun poles	,,	32	2	.	
	Teak	,,	244	942	...	
	Do. stumps	,,	90	50	...	
	Do crooks	,,	51	13	..	
	Thitka	,,	1,140	3,047	...	
	Thingan hulls.	,,	1	60	...	
	Compensation for felling two green teak trees ..		...	100	...	
	Wood-oil		..	28	...	
	Charcoal			57	.	
	Total ...		...	23,073	23,073	
TAVOY	Woods, other kinds	Logs.		149	...	
	Thingan	,,	9	253	...	
	Unknown	,,	3	6	...	
	Pyinma	,,	187	190	..	
	Kyézò	,,	41	30	...	
	Manthin	,,	180	193	..	
	Pyingado	,,	1,697	2,441	...	
	Tagu	,,	186	289	...	
	Che	,,	20	30	.	
	Kaunghmu	,,	77	402	.	
	Zugat	,,	144	213	.	
	Taungthaing	,,	34	120	...	
	Unreserved kinds	,,	49	73	...	
	Zinbyun	,,	26	2	..	
	Kadut	,,	132	478	...	
	Kyetsa	,,	1	1	...	
	Thitya	,,	18	20	...	
	Myauklu	,,	3	11	...	
	Thitshu	,,	220	326	...	
	Thitto	,,	72	100	...	
	Panga	,,	157	236	...	
	Thanché	,,	3	5	...	
	Kanyin	,,	71	108	...	
	Kayin	,,	14	8	...	
	Kaban	,,	52	74	...	
	Kyetusa	,,	3	4		
	Tharapi	,,	51	46	...	
	Thabye	,,	5	8	...	
	Thinban	,,	...	3	..	
	Kywéthwé	,,	13	5	.	
	Bundathat	,,	16	25	...	
	Yat	,,	1	2		
	Yamane	,,	19	28		
	Yuntha	,,	...	2	...	
	Taungkazo	,,	3	4	...	
	Luzan	,,	2	3	..	
	Thitna	,,	1	2	...	
	Kadut	,,	5	5	.	
	Zardeikpo	,,	2	3	.	
	Palébyin	,,	10	1	...	
	Petpo	,,	10	1	...	
	Thayet	,,	2	2		
	Intha	,,	20	30	.	
	Unreserved timber	,,	74	445	.	
	Charcoal license			61	...	
	Wood-oil permits		..	2,089	..	
	Total			8,596	8,596	
MERGUI	Thingan dugyis . ..	Logs.	30	81		
	Ditto ...	,,	42	126		
	Ditto	,,	608	1,520		
	Thingan yatthits .	,,	3	4	..	
	Kanzaw dugies	,,	2	6	...	
	Ditto	,,	232	580		
	Kanzaw yatthits	,,	2	3	...	
	Karawe dugyis		9	22	...	
	Ditto yatthits	,,	57	91	...	
	Anan dugyis	,,	6	15	...	
	Do. yatthits . . .	,,	33	41	...	
	Carried over .		.	2,489	...	

FORM No. 63.—*Timber and other Produce cut, collected, and removed from the Forests by Consumers or Purchasers during 1883-84*—(concluded).

Division.	Produce removed. Description.		No. or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
				Rs.	Rs.	
	Brought forward ...		...	2,489	...	
MERGUI ...	Thitka dugies	Logs.	5	12		
	Reserved timber dugies	"	6	15	...	
	Pyinma do.	"	23	34	...	
	Thayet do.	"	7	11	...	
	Ulan do.	"	6	9	...	
	Tagu do.	"	211	316	...	
	Manthin do.	"	49	74	...	
	Yamane do.	"	7	10	...	
	Sitha do.	"	23	35	...	
	Tharapi do.	"	2	3	...	
	Thitya do.	"	15	23	...	
	Kadut do.	"	40	60	...	
	Kyanan do.	"	96	144	...	
	Kanazo do.	"	30	45	...	
	Ditto small posts	"	20	2	...	
	Kyezi duggys	"	10	15	...	
	Ditto	"	20	15	...	
	Yatha dugyis	"	1	2	...	
	Kaunghmu dugyis	"	43	64	...	
	Taungban do.	"	12	18	...	
	Kamaung do.	"	7	10	...	
	Panthitya do.	"	1	2	...	
	Panga do.	"	12	18	...	
	Pagottagu do.	"	2	3	...	
	Kamyin do.	"	8	12	...	
	Pinlèpyin do.	"	2	3	...	
	Myauksalut do.	"	1	2	...	
	Thitkalun do.	"	1	2	...	
	Zadeikpo do.	"	5	7	...	
	Tauntaron do.	"	11	16	...	
	Suikozi do.	"	1	2	...	
	Kamyin small posts	"	4,037	282	...	
	Ditto ditto	"	1,820	5	...	
	Panlôn ditto	"	2,592	181	...	
	Panlon ditto	"	6,735	17	...	
	Taget dugyi	"	1	2	...	
	Unreserved timber dugyi	"	164	223	...	
	Ditto yathita	"	10	7	...	
	No. VIII permits for 57 workmen at 8 annas per man		...	28	..	
	Wood-oil permits	"	...	1,494	...	
	Total ...		...	5,712	5,712	
	GRAND TOTAL ...		...	61,120	61,120	

FORM No. 63.—*Timber and other Produce cut, collected, and removed from the Forests by Consumers or Purchasers, including pasture, during 1883-84.*

Division	Produce removed. Description.		No. or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks
				Rs.	Rs.	
PROME ...	Refuse teak		11·15	347	...	
	Green do.		41·39	708	.	
	Teak cart-wheels		17½	35	...	
	Cutch trees		500	1,670	...	
	Pyingado posts		20	35	...	
	In logs		148	158	...	
	Green in		150	69	...	
	Ditto		714	14	...	
	Unreserved woods at Rs. 2 each		224	448	...	
	Ditto at Rs. 1 "		160	160	...	
	Small posts		452	45	...	
	Unreserved woods at Rs. 1-8-0 each		9,065	13,598	...	
	Ditto at Rs. 0-12-0 "		10,422	7,817	...	
	Small posts		4,418	309	...	
	Poles below 1 foot at 4 annas per 100		34,490	86	...	
	Pass fees at 6 pies each		4,835	151	...	
	Ditto at 3 pies each		6,388	100	...	
	Trade permit by Civil Department		...	341	...	
	Charcoal		166	83	...	
	Bamboos		2,700	7	...	
	Cutch cauldrons		2,096	41,920	...	
	Shaw trees		8	16	...	
	Wood-oil		45	90	...	
	Resin		3	6	...	
	Total ...		...	68,213	68,213	

FORM No. 63.—*Timber and other Produce cut, collected, and removed from the Forests by Consumers or Purchasers, including pasture, during 1883-84*—(continued).

Division.	Produce removed. Description.	No. or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks
			Rs.	Rs.	
THARRAWADDY.	Teak trees ...	440	2,887	2,887	
	Cutch trees ...	3,564	14,666	14,986	
	Sale-deposits forfeited	...	320		
	Teak logs ... C. ft.	867·28	196	196	
	Kanyin logs ... "	8,651	1,123	1,130	
	Pyinma logs ... "	42	7		
	Pyinma logs	640·8	129	143	
	Thingan logs	72·3	14		
	Dugyis	2,832	4,248	5,682	
	Yatthits	1,841	1,381		
	Posts	758	53		
	Dugyis	2,448	4,888	49,305	
	Yatthits	1,947	1,947		
	Posts	691	69		
	Small posts...	150	2		
	Planks	230	49		
	Charcoal licenses	...	192		
	Bamboos	1,100,127	2,761		
	Grazing cattle	241	109		
	Cutch cauldrons	1,015	36,300		
	Thetkè bundles	12,590	231		
	Shaw fibre ...	18,618	182		
	Cigar leaves	2,505,000	200		
	Wood-oil licenses	119	364		
	Honey	1	10		
	Thin ... cart-load	1	1		
	Total ...	...	74,329	74,329	
TOUNGOO	Pyinma ... Tons.	65	598	13,417	
	Thingan "	64	594		
	Teak extracted by Railway Department.. ...	44	2,078		
	Ditto by Public Works Department ...	30	559		
	Teak extracted by other consumers ...	16	549		
	License fees, unreserved woods ...	13,573	8,608		
	Pyingado sleepers, refuse ...	...	447		
	Charcoal baskets ...	15,000	32	32	
	Bamboos ... No.	19,995	98	98	
	Cutch trees ...	6,200	880	1,449	
	Canes No.	500	50		
	Kanyin-oil ... Viss.	3,000	220		
	In-oil "	20	2		
	Thitse "	3,100	240		
	Dammar	200	16		
	Honey	80	33		
	Shaw fibre ...	8	8		
	Total ...	...	14,996	14,996	
SHWEGYIN	Teak	1663·6	1,014		
	Kanyin	94·763	15,322		
	Pyinma	3,508	632		
	Thingan	598	120		
	Thitgado	224	28		
	Thitka	1,061	170		
	Kaunghmu ...	26	5		
	Unreserved woods	8,595	7,492		
	Passing fees	...	120		
	Charcoal	...	259		
	Wood-oil	...	392		
	Total ...	...	25,554	25,554	
	A.—TIMBER.				
	(a) From Reserved Forests.				
RANGOON ...	In trees	5	20	20	Thitpyat reserve, Magayi reserve. Cut by Executive Engineer, Hanthawaddy.
	Pyingado posts	104	182	875	
	Ditto scantlings ... C. ft.	7,412	693		
	Total ...	...	895	895	
	(b) From Unreserved Forests.				
	License III—				
	Teak ...	11	20	20	
	License IV—				
	Teak ...	6	53	53	
	Pyinma	16	83	83	
	Kanyin	169	952	952	
	Total ..	...	1,088	1,088	
	Carried over ...	...	2,003	2,003	

FORM No. 63.—*Timber and other Produce, cut, collected, and removed from the Forests by Consumers or Purchasers, including pasture, during 1883-84*—(continued).

Division	Produce removed — Description	No or quantity	Amount of revenue	Amount actually realized during the year	Remarks
			Rs	Rs	
	Brought forward ..	.	2,003	2,003	
	(b) *From Unreserved Forests*—concluded				
	License VI—				
	Dugyi, hlwaza ..	2,476*	4,954	4 954	*Double revenue charged on one cut in excess
	Yatthit ..	4,806	4,806	4,806	
	Small posts .	1,770	250	250	
	Total .		10,010	10,010	
	License VII—				
	Dugyi, hlwaza . . .	5,230	7,844	7,844	
	Yatthit	10,588	7,941	7,941	
	Small posts	3,331	235	235	
	Poles	20,000	50	50	
	Total ..	.	16,070	16,070	
	License XII—				
	Floating fees .	.	72	72	
	Total .		28,155	28,155	IIa
	B—FIREWOOD AND CHARCOAL				
	License VI—				
	Yatthits .. .	21	21	21	
	Posts . .	723	73	73	
	Poles .	2,500	6	6	
	Total .		100	100	
	License VIII—				
	Men	166	304	304	
	Total .	.	404	404	IIb
	C—BAMBOOS				
	Hlaing Range—				
	Okkan reserve	277,550	704	704	
RANGOON	Thabyu reserve . .	5 550	14	14	
	Thitpyat do . .	7,600	19	19	
	Magayi do	13,400	33	33	
	Hlaing yoma reserve . . .	33,500	84	84	
	Total Hlaing ..	.	854	854	
	Paunglin Range—				
	Paunglin reserve .. .	118,000	295	295	
	Pegu range—				
	South Zamayi reserve	202,000	507	507	
	Total Bamboos .	.	1,656	1,656	IIc
	D.—GRAZING				
	Hlaing Range—				
	Magayi reserve, buffaloes .	69	35	35	
	Ditto, cows	27	7	7	
	Thabyu reserve, "	22	5	5	
	Thitpyat " "	36	9	9	
	Total ..		56	56	
	E—OTHER MINOR PRODUCE				
	I—*Reserved Forests*				
	Hlaing Range—				
	Okkan reserve, shaw ... Trees	82	41	41	
	Salu . ... Cart	1	2	2	
	Thetkó . . .. "	4	8	8	
	Thin .. .. "	3	12	12	
	Canes ... ... "	1	4	4	
	Total		67	67	
	Magayi reserve, shaw .. . Trees	4	4	4	
	Thetkó . .. ... Carts	14	28	28	
	Total .		32	32	
	Hlaing Yoma Reserve—				
	Canes .. .. . Cart.	1	4	4	
	Thabyu reserve, Salu .. "	1	2	2	
	Thetkó ... . "	1	2	2	
	Total .	..	4	4	
	Carried over	..	107	107	

FORM No. 63.—*Timber and other Produce cut, collected, and removed from the Forests by Consumers or Purchasers, including pasture, during 1883-84*—(concluded).

Division.	Produce removed. Description.		No. or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
				Rs.	Rs.	
	Brought forward ...		...	107	107	
	E.—OTHER MINOR PRODUCE—concluded.					
	I.—Reserved Forests—concluded.					
RANGOON ...	*Thitpyat Reserve*— Tazinban	Collection	...	20	20	
	Kyaungchaung Reserve— Thetkô	Carts	3	6	6	
	Himawbi reserve		2	4	4	
	Total Hlaing Range ...		...	137	137	
	Paunglin Range					
	Paunglin Reserve— Shaw	Trees	84	42	42	
	Pegu Range.					
	South Zamayi Reserve— Shaw		40	20	20	
	Taungdaw		...	50	50	
	Total ...		...	70	70	
	Total Revenue from Reserved Forests ...		...	249	249	
	II.—Unreserved Forests.					
	License X— Kanyin-oil—		No. issued.			
	Hlaing range		1	8	8	
	Paunglin range		5	40	40	
	Pegu range		...	...	...	
	Total ...		...	48	48	
	Total for Minor Produce ...		...	297	297	IIs.
	GRAND TOTAL UNRESERVED FORESTS ...		..	30,568	30,568	
WESTERN ...	Kanyin	C feet	6,582	1,225	...	
	Pyinma	"	1,460	248	...	
	Thitgado	"	100	16	...	
	Kashit	"	50	8	...	
	Teak	Pieces	15	112	...	
	Pyingado	...	6,917	7,448	...	
	Taukkyan	...	50	46	...	
	In	...	1,309	1,462	...	
	Extra revenue charged on license VIII for timber larger than allowed by license ...	...		386	...	
	Thabye	...	344	439	.	
	Pyinma	...	51	43	...	
	Thitpya	...	38	34	...	
	Shaw	...	3	6	...	
	Kanyin	...	410	820	...	
	Thitya	..	151	222	...	
	Thingan	...	670	673	...	
	Thitpyu	...	10	8	...	
	Laba	...	1,502	2,304	...	
	Thitto	...	8	19	...	
	Poles	...	102,151	331	..	
	Posts	...	7,752	627	...	
	Removal charges	...	...	249	...	
	Civil Department	...	...	137	...	
	Other kinds, woods	...	...	5,101	...	
	Firewood and charcoal	...	...	102	...	
	Cutch	...	...	2,005	...	
	Wood-oil	...	...	8	...	
	Total ...		...	24,092	24,092	
AGENCY ...	Thayet	...	244	467	...	
	Pyingado, &c.	...	1,066*	3,304	..	*Akyab civil revenue
	Unreserved woods	...	44	86	...	
	Poles	...	7,709	256	...	
	Oil	...	*	33	...	
	Total ...		...	4,146	4,146	
	GRAND TOTAL ...		...	241,898	2,41,898	

FORM No. 64 [SUGGESTED].—*Statement showing the Revenue derived and Expenditure incurred on Timber and other Produce sold to Public Departments from Depôts in the Tenasserim Circle during 1883-84.*

Division.	Name of Department.	Particulars of supplies.	Amount supplied.	Rate: At	Rate: Per	Amount of Revenue: Due.	Amount of Revenue: Received.	Amount of Revenue: Outstanding	Cost to Forest Department: Timber expenses under AI.	Cost to Forest Department: Quota of all other expenditure chargeable against timber, &c.	Cost to Forest Department: Total.	Comparison of Revenue and Expenditure: Surplus.	Comparison of Revenue and Expenditure: Deficit.	Remarks.
			Tons ft. in. p.	Rs. A. P.		Rs.	Rs.	Rs	Rs	Rs.	Rs	Rs.	Rs.	
SALWEEN.	Gun-carriage Factory Bombay	213 teak squares ...	179 46 10 2	130 0 0	Ton	22,568	22,568	..						
		260 logs padauk ...	197 46 1 2	125 0 0	"	24,740	24,740	.	25,230	1,618	26,848	23,477	...	
		40 do. Salween ...	27 21 4 11	110 0 0	"	3,017	3,017	...						
		Total ...	405 14 4 3	.		50,325	50,325	...	25,230	1,618	26,848	23,477	..	
	Gun-carriage Factory, Madras	2 teak squares ...	4 44 1 2	200 0 0	Ton	976	976	...						
		90 do. logs ...	101 13 6 8	110 0 0	"	11,139	11,139	...	10,596	513	11,109	6,378	..	
		50 logs padauk ...	39 39 10 11	135 0 0	"	5,372	5,372	...						
		Total ...	145 47 6 9	...	...	17,487	17,487	...	10,596	513	11,109	6,378	.	
	Executive Engineer, Moulmein.	25 logs thingan ...	17 26 2 7	28 0 0	Ton	490	490							
		7 do kaungmu ...	4 44 3 11	24 0 0	"	117	117							
		27 do pyinma ...	21 49 2 9	18 0 0	"	467	467							
		19 do thutka ...	24 26 3 4	24 0 0	"	588	588							
		37 do thitgado ...	44 22 1 3	24 0 0	"	1,066	1,066	...	1,903	...	1,903	1,544	...	
		32 do. ingyin ...	17 37 10 10	28 0 0	"	497	497							
		8 do. sit ...	4 8 1 8	28 0 0	"	116	116							
		4 do pyingado ...	1 43 2 2	8 0 0	Log	32	32							
		10 planks padauk ...	1 43 2 2	40 0 0	Ton	74	74							
		Total ...	139 0 6 8	.	...	3,447	3,447	...	1,903	...	1,903	1,544	...	
	Superintendent of Police, Moulmein . ..	51 logs pyinma ...	40 4 8 0	18 0 0	Ton	721	721	...	408	...	408	313	...	
	Gun-carriage Factory, Fatigarh...	7 planks padauk ...	1 12 0 0	180 0 0	Ton	223	223	...	124	...	124	99	...	
		Total Salween Division	731 29 1 8	...	...	72,203	72,203	...	38,261	2,131	40,392	31,811	...	
SOUTH TENASSERIM.	Public Works Department, Tavoy	18 logs thingan ...	9 36 7 2	16 0 0	Ton	156	156	...	79	..	79	77	...	
		6 do. kamaung ...	...	1 8 0	Log	9	9	...	..	...	...	9	...	
		16 do. do. ...	...	50 8 0	"	808	808	...	800	...	800	8	...	
		20 do. pyinma ...	11 18 0 3	14 0 0	Ton	159	159	..	88	...	88	71	...	
		26 do do. .	...	1 8 0	Log	39	39	...	.	...	...	39	...	
		5 do thitka ...	..	16 0 0	"	80	80	...	36	...	36	44	...	
		10 do anan ...	6 8 7 0	16 0 0	Ton	99	99	..	49	...	49	50	...	
		Total ...	27 13 2 5	...	...	1,350	1,350	...	1,052	...	1,052	298	...	
	Jail Department, Tavoy ..	1 log chè ...	0 28 1 6	14 0 0	Ton	8	8	..	5	...	5	3	...	
		1 do. karawe ...	0 38 3 0	14 0 0	"	14	14	...	5	...	5	9	...	
		2 logs thingan ...	1 15 2 1	18 0 0	"	32	32	...	16	.	16	16	...	
		Total ...	2 31 6 7	.	...	54	54	...	26	.	26	28	...	
		Total South Tenasserim Division ...	29 44 9 0	...	...	1,404	1,404	...	1,078	...	1,078	326	...	
		Total Tenasserim Circle	761 23 10 8	...	...	73,607	73,607	...	39,339	2,131	41,470	32,137	...	
											Deduct deficit ..	.		
											Balance for the Depôt ..	32,137		

FORM No. 64.—*Statement showing the Revenue derived from and Expenditure incurred on Timber and other Produce sold to Public Departments from the Pegu Circle during 1883-84.*

Name of department.	Particulars of supplies	Amount supplied.		Rate.		Amount of revenue			Cost to Forest Department.			Comparison of revenue and expenditure.	
		Number or quantity.	Cubic feet.	At	Per	Due.	Received.	Outstanding.	Timber expenses under AI, AIII.	Quota of all expenditure chargeable against timber, &c.	Total.	Surplus.	Deficit.
				Rs. A. P.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Agency Division—													
Executive Engineer, headquarter division	Yard pieces..	8	628	. ...	...	1,382	1,382	...	160	67	227	1,155	...
Burma State Railway ...	I Dugyis	58	3,312	. ...	...	6,129	6,129	...	810	299	1,109	5,020	...
	Hlwazas	10	513	.....	..	923	923	...	100	38	138	785	...
Storekeeper, Burma State Railway.	I Dugies	31	1,830	.....	...	3 478	3,478	...	423	159	592	2,886	...
	Hlwazas	99	5,038	.. ...	...	9,071	9,071	...	841	386	1,227	7,844	...
Commissary of Ordnance ...	Do.	2	191	.....	...	344	344	..	17	8	25	319	...
	Thitka	1	51	. ....	...	36	36	...	8	2	10	26	...
Director-General of Telegraphs...	Pyingado telegraph posts .	122	637	. ...	...	459	459	..	122	26	148	311	...
	Total ..	331	12,200	.	.	...	21,822	...	2,491	985	3,476	18,346	...
Rangoon Division—													
Executive Engineer, Hanthawaddy.	Pyingado	...	1,916	4 0 0	Ton	153	153	..	...	96	96	57	...
	Do.	...	6,000	4 8 0	"	540	540	...	...	410	410	130	...
	Fence posts	700	...	. .	"	315	315	...	119	175	294	21	...
Executive Engineer, Sittang Railway, Pegu	Teak	4	300	71 0 0	Ton	427	427	..	54	27	81	346	...
Superintendent of Police ...	Pyingado posts	12	...	8 0 0	Each	96	96	...	48	32	96	36	...
	Do.	4	.	9 0 0	"	36	36	...	16				
	Do. (tons)	...	200	70 0 0	Ton	281	281	...	68	10	78	203	...
Executive Engineer, Sittang Railway, 1st and 2nd divisions. .	Do. logs	32	...	8 8 0	Each	272	272	...	192	48	240	32	...
Forest agency officer .. .	Do. scantlings	264	706	45 0 0	Ton	635	635	...	240	...	240	395	...
Executive Engineer, Tharrawaddy.	Do. do.	20	...	1 8 0	Each	30	30	...	...	...	...	30	...
	Do. yatthits	60	...	0 12 0	"	45	45	...	...	...	...	45	...
	Total ...	1,096	9,122	.....	..	..	2,830	...	737	798	1,535	1,295	..
Prome Division—													
Executive Engineer, Prome ..	Pyingado	116	.	2 0 0	Each	232	232	...	...	58	58	174	...
Ditto, Thayetmo ..	Thitya	57	...	2 0 0		114	114		...	105	105	150	...
		153	.	1 0 0	"	141	141	...					
Telegraph Department, Prome ...	Pyingado	183	...	1 0 0	"	183	183	...	...	91	91	92	...
Total ...		509	.	. ...	..	...	670	. .	...	254	254	416	...
Western Division—													
Executive Engineer, Henzada ..	Pyingado	179	3,100	1 9 0	Ton	280	280	...	...	622	622	...	252
Telegraph Department, Bassein	Do.	179	.	0 8 0	Each	89	89						
	Do.	33	. .	1 0 0	"	33	33	...	.	3	3	30	...
Bassein Jail	Teak	100	. .	34 0 0	"	3,395	3,395	...	851	1,611	2,462	933	...
	Pyingado	50	1,400	18 0 0	Ton	519	519	...	291	125	416	103	...
	Kashit	13	500	14 0 0	"	182	182	...	101	3	104	78	...
Executive Engineer, Henzada ...	Pyingado	62	. .	2 0 0	Each	124	124	...	...	15	15	109	...
Bassein Jail	Drift teak	13	...	51 0 0	"	659	.	659	329	69	398	261	...
	Total .	629	5,000	... ..	.	. .	4,622	659	1,572	2,448	4,020	1,514	253

FORM No. 64.—*Statement showing the Revenue derived from and Expenditure incurred on Timber and other Produce, &c.*—(concluded).

Name of department	Particulars of supplies.	Amount supplied. Amount or quantity.	Amount supplied. Cubic feet.	Rate. At	Rate. Per	Amount of revenue. Due.	Amount of revenue. Received.	Amount of revenue. Outstanding.	Cost to Forest Department. Timber expenses under AI, AIII.	Cost to Forest Department. Quota of all expenditure chargeable against timber, &c.	Cost to Forest Department. Total.	Comparison of revenue and expenditure. Surplus	Comparison of revenue and expenditure. Deficit.
				Rs. A. P	Rs.	Rs	Rs.	Rs	Rs.	Rs	Rs	Rs.	Rs
Shwegyin Division—													
Executive Engineer, Sittang Railway	Sleepers	7,500	27,002	1 10 0	Each	12,187	12,187	...	28,864	1,203	30,067	3,844	...
		6,987		1 10 0	"	11,339	11,339						
		3,490		1 10 0	"	5,672	5,672						
		2,900		1 10 0	"	4,713	4,713						
	Pyinma	40	1,383	22 0 0	Ton	608	608	...	...	180	180	428	...
Police Department	Teak logs	10	400	25 0 0	"	200	200	...	..	25	25	175	...
	Total ..	20,927	28,785	.....	...	..	34,719	...	28,864	1,408	30,272	4,447	...
Toungoo Division—													
Executive Engineer	Hnaw 1	2	80	10 0 0	Ton	16	16	...	1	2	3	13	...
	Banza 1												
	Pyinma	2	67	20 0 0	"	27	27	...	3	2	5	22	...
	Do.	...	1 400	8 0 0	"	224	224	...	..	70	70	154	...
	Unreserved woods ...	55	...	0 12 0	Log	41	41	...	...	145	145	300	...
		14	...	. . .	"	1	1						
		197	..	1 8 0	"	295	295						
		24	..	4 8 0	"	108	108						
	Teak logs	30	790	35 0 0	Ton	553	553	...	15	72	87	466	...
Executive Engineer, Sittang Railway	Reserved woods	660	...	0 12 0	Each	495	495	...	..	330	330	165	...
	Teak	60	4,191	75 0 0	Ton	6,286	6,286	...	3,143	150	3,293	2,993	...
		3	240	40 0 0	"	192	192	...	...	10	10	182	...
		50	3,155	75 0 0	"	4,732	4,732	...	599	157	756	3,976	...
		26	1,312	55 0 0	"	1,443	2,115	...	827	120	947	1,168	...
		31	960	35 0 0	"	672							
		10	500	55 0 0	"	550	550	...	47	39	86	464	...
		23	715	55 0 0	"	786	1,003	...	304	87	391	612	...
		18	510	35 0 0	"	217							
		4	277	75 0 0	"	415	967	...	141	42	183	784	...
		14	367	55 0 0		404							
		12	211	35 0 0		148							
		41	1,715	55 0 0	"	1,886	1,886	...	179	128	307	1,579	...
		2	170	60 0 0	"	204	694	...	110	15	125	569	...
		9	490	50 0 0	"	490							
Third division	Pyinma	28	981	10 0 0	"	196	320	...	42	45	87	233	...
	Unreserved	62	...	2 0 0	Each	124							
Commissary of Ordnance ...	Padauk	4	...	4 0 0	"	16	16	...	2	1	3	13	...
	Planks	4	..	6 0 0	"	24	24	...	24	...	24	...	...
	Total ...	1,785	17,931	.....		...	20,545	..	5,437	1,415	6,852	13,693	...
	Total Pegu Circle ...	...	...	... .		...	85,208	659	39,101	7,308	46,409	39 711	253
	GRAND TOTAL BRITISH BURMA ..	.	...	.....		...	1,58,815	659	78,440	9,439	87,879	71,848	253
											Deduct deficit ..	253	
											Balance for the department ...	71,595	

FORM No. 65.—*Abstract showing the Value of Timber and other Produce at Sale Depôts for 1883-84.*

Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value		Remarks.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favour of the year.	Against the year.	
Timber.			Rs.			Rs.	Rs.	Rs.	
Logs, teak	1	101	250	2,179	18,240	7,919	7,669	...	
Drift logs, teak	1,948	71,139	39,934	1,754	63,970	17,540	...	22,294	
Logs, woods, other kinds	799	24,262	11,217	662	26,709	21,001	9,784	..	
Sleepers	2,399	7,506	6,483	3,215	10,172	11,989	5,506	...	
Scantlings ... ... Tons	156	7,866	4,810	47	2,369	1,641	...	3,169	
Total Tenasserim Timber Stock ...	5,303	110,876	62,694	7,857	121,460	60,090	22,959	25,563	
Live stock	4	...	4,800	8	...	8,312	3,512	...	
Buildings	21	...	19,504	...	...	17,554	...	1,950	
Dead stock	...	...	11,337	...	...	18,068	6,731	..	
Total Tenasserim Live and Dead Stock ...	...	...	35,641	..	..	43,934	10,243	1,950	
Logs, teak	19,183	932,897	5,82,100	19,486	893,273	5,93,528	11,428	...	
Sleepers, teak	3,065	4,597	4,900	57	85	28	...	4,872	
Scantlings, teak	.	...	...	9	8	8	8	..	
Other kinds, logs	2,671	100,173	39,300	1,627	62,284	19,644	...	19,656	
Other kinds, sleepers	24,000	36,000	39,000	6,132	9,198	9,965	...	29,035	
Total Pegu Timber Stock ...	48,919	1,073,672	6,65,300	27,311	964,848	6,23,173	11,436	53,563	
Live stock	38*	...	46,800	37	...	46,500	...	300	* Includes one calf.
Buildings	46	...	53,000	50	...	53,688	688	...	
Dead stock	...	...	27 750	...	...	29,711	1,961	...	
Total Live and Dead Stock ...	...	...	1,27,550	...	...	1,29,899	2,649	300	
Total Pegu Circle ...	...	..	7,92,850	...	...	7,53,072	14,085	53,863	
GRAND TOTAL BRITISH BURMA ...	..	..	8,91,185	...	...	8,57,096	47,287	81,376	

APPENDIX A.

Statement exhibiting the Cost of Feed and Keep of Elephants of the Forest Department for the official year 1883-84 as compared with that of the Commissariat Department for the same period.

Division.	Number of elephants at commencement of year	Casualties during year.	Number of elephants at close of year.	Cost of feed.	Cost of keep including gear.	Cost of medicines.	Total expenditure for the year.	Average monthly cost per animal of the Forest Department.	Average monthly cost per animal of the Commissariat Department.	Amount paid by officers for carriage elephants.	Value of labour in cash receipts and work performed.	Remarks.
				Rs A P	Rs A. P	Rs. A P.	Rs A P	Rs A. P.	Rs. A P	Rs. A. P.	Rs A P.	
Salween	2	...	2	845 4 6	618 0 0	38 0 0	1,501 4 6			.	2,240 8 0	In the abstract of expenditure only Rs 2,316 7-3 is shown as expended during the year for feed and keep of elephants under AVI*b*, whereas in this statement Rs 2,346-14-9 is shown; the difference is the value of paddy purchased and charged in 1882-83 but on which the elephants have been fed during 1883-84
East Salween	1	..	2	...	319 5 3	19 8 0	338 13 3	24 7 2	53 10 0	52 0 0	378 0 0	
West Salween	1	..	2	..	290 0 0	...	290 0 0			..	214 0 0	
Ataran	.	..	2	..	216 13 0		216 13 0			..	...	
Total Tenasserim Circle .	4	...	8	845 4 6	1,444 2 3	57 8 0	2,346 14 9	24 7 2	53 10 0	52 0 0	2,832 8 0	
Tharrawaddy	9 *a*	3	8 *a*	.	2,570 4 3	32 7 9	2,602 12 0			...	5,783 0 0	*a* Includes a calf.
Rangoon	4	1	4	..	1,064 1 0	96 0 0	1,160 1 0			...	1,082 0 0	
Prome	1		2	..	715 10 8	24 15 3	740 9 11			.	672 0 0	
Toungoo	7	..	7	9 8 0	2,126 7 4	18 3 3	2,154 2 7	38 15 4	49 14 0	76 0 0*b*	2,080 0 0	*b* From Colonel Munro
Agency	12	2	9	2,664 9 11	5,920 7 10	463 10 9	9,048 12 6			...	14,379 0 0	
Western	3	..	5	6 8 0	890 0 0	33 8 0	930 0 0			...	1,044 0 0	
Shwegyin	2	...	2	...	634 4 0	37 0 0	661 4 0			...	960 0 0	
Total Pegu Circle .	38	6	37	2,680 9 11	13,921 3 1	695 13 0	17,297 10 0	38 15 4	49 14 0	76 0 0	26,000 0 0	
TOTAL BRITISH BURMA ...	42	6	45	3,525 14 5	15,365 5 4	753 5 0	19,644 8 9	...	..	128 0 0	28,832 8 0	

APPENDIX B.

British Burma.

List of Buildings of which the Cost exceeds Rs. 200 and for occupation of which no Rent is paid.

Division	No.	Name of building	Station.	Remarks
Salween ..	1	Forest office	Moulmein	
	1	Elephant-shed	Do.	
	1	Paddy shed	Do.	
East Salween	1	Bungalow	Kawkareik	
	1	Rest-house	Gyaing on the Haungdaraw.	
West Salween	1	Bungalow	Papun.	
Ataran	1	Rest-house	Natchaung	
Kado	1	Guard-house	Martaban.	
	4	Guard-houses	Moulmein.	
	3	Offices and two out-houses	Kado	
	1	Lascar's house	Do	
	1	Upper guard-house	Do.	
	1	Lower guard-house	Do	
	1	Ditto	Nautè	
South Tenasserim	1	Office	Mergui	
	1	Guard house	Tavoy	
		(a)—On which no rent is paid		
Tharrawaddy	1	Forest office	Tharrawaddy	
	1	Ditto	Paungdè	
	16	Rest-houses	Kangyi, Yôksein, Gyobinaing, Segangalo, Bawbin, Waing, We, Sèywa Kaunglaungdaing, Kwingyi, Kywèmakaing, Thomè, Yetho, Kyun, Myoda, Kainggwin	
Rangoon	1	Forest office	Pegu	
	3	Revenue stations	Tawlatè, Awaing, Hlègu	
	2	Rest-houses	Palôn, Kinpadi	
Prome	2	Do	Kadinngazin, Taungalo	
Shwegyin	1	Forest office	Shwegyin.	
	1	Bungalow	Chaungzauk	Made over by Public Works Department
	1	Overseer's quarters	Myitkyo.	
	1	Rest-house	Do	
Toungoo	1	Forest office	Toungoo.	
	6	Rest-houses	Pyun, Tabetnwè, Zebyubin, Pathi, Baubwebin, Minyè.	
Depôt and Agency	1	Central depôt	Kommendine, Rangoon	
	1	Overseer's quarters		
	6	Guard-houses		
	1	Mahout's quarter		
	1	Elephant-shed		
	1	Seasoning-shed		
		(b)—On which rent is paid.		
Prome	1	Forest office	Prome	
Tharrawaddy	1	First class bungalow	Tharrawaddy.	

APPENDIX C.

Statement showing the Imports of Timber and other Forest Produce into the Ports of Rangoon and Moulmein during 1883-84 (Private and Government).

Articles.	Whence imported.	Into Rangoon.		Into Moulmein.	
		Quantity.	Value.	Quantity	Value.
			Rs		Rs.
Wood, teak ... ... Tons	Straits Settlements	4	350	...	...
	Provincial ports	900	84,733	37	3,736
	Total ...	904	85,083	37	3,736
Other timber ... .. Tons	United Kingdom	5	252	...	...
	Straits Settlements .. .	116	5,708	...	.
	Bengal—Calcutta	1	55		
	Bengal—Other ports	64	8,948	..	
	Provincial ports	1,602	79,715	220	7,196
	Total .	1,788	94,768	220	7,196
Firewood .. .. Tons	United States—New York ...	3	30		...
	Arabia—Other Arabian States .	10	150	...	...
	Siam	.		6	18
	Straits Settlements .	100	1,250	20	284
	Bengal—Other ports	140	800	...	
	Provincial ports	55	800	23	179
	Total ...	308	3,030	49	481
Sandalwood ... ... Val.	Straits Settlements		6,940	...	364
	Bengal—Calcutta	...	1,834	...	990
	Bombay—Bombay	.	24,057	...	967
	Madras—Madras	...	547	...	405
	Madras—Other ports	...	80	.	
	Provincial ports	.	1,038	.	400
	Total ...	...	34,496	...	3,126
Teak shingles ... ... No.	Provincial ports	1,479,865	34,691	.	...
Sleepers ... ... Cwt	Bengal—Other ports	200	1,000	...	...
	Provincial ports . ..	3,593	6,654	.	...
	Total .	3,793	7,654	..	
Gums, &c.,—Cutch and gambier ... Cwt.	Bengal—Calcutta	8	104	.	..
	Provincial ports	.	...	4,773	85,190
	Total ...	8	104	4,773	85,190
Lac, stick ... .. Cwt.	.. .	.	...	.	..
Oil, wood... ... .. Galls.	Straits Settlements . . .	543	774	.	
	Provincial ports	6,717	3,834	460	299
	Total	7,260	4,608	460	299

Statement showing the Exports of other Forest Produce from the ports of Rangoon and Moulmein during 1883-84 (private and Government).

Articles.	Whither exported.	From Rangoon.		From Moulmein.	
		Quantity	Value.	Quantity.	Value
			Rs.		Rs
Gums and resins—Cutch and gambier . ... Cwt	United Kingdom	120,342	13,27,513	...	..
	France—Marseilles..	1,111	12,018	..	
	Egypt—Port Said	46,721	15,00,450	4,527	82,364
	St Helena	33,020	3,89 920	...	
	Ceylon	2,048	31,572	.	
	China—Hong-kong	240	2,760	...	
	Straits Settlements	21,887	2,33,508	...	...
	Bengal—Calcutta	67,723	8,17,999	...	..
	Bengal—Other ports	41	755	..	.
	Bombay -Bombay . ..	13,075	1,45,780	...	..
	Madras—Madras	4,018	61,781	...	...
	Madras—Other ports	3,907	59,926	2	35
	Provincial ports	5,044	70,144	...	
	Total ...	319,346	46,53,521	4,529	82,359
Lac, stick ... . Cwt.	Straits Settlements	.	..	81	1,000
	Bengal—Calcutta	1,256	21,790	...	.
	Madras—Madras ..	1,510	26,099	...	.
	Madras—Other ports	1,543	27,747	...	.
	Provincial ports	61	1,214	...	
	Total ...	4,370	76,850	81	1,000
Oils, wood .. Galls	Provincial ports	.	...	680	510
	Bengal—Calcutta	1,816	1,125	...	.
	Bombay—Bombay	112	112	160	200
	Madras—Madras	6,878	4,321	1,082	651
	Madras—Other ports	1,017	537	408	306
	Total .	9,823	6,095	2,330	1,687

APPENDIX C.

Statement showing the Exports of Teak Timber during the official year 1883-84 from the Ports of Rangoon and Moulmein (Private and Government).

Whither exported	From Rangoon		From Moulmein	
	Cubic tons	Value	Cubic tons	Value
		Rs		Rs
United Kingdom	10,764	11,10 004	16 215	19 58 713
Germany—Dantzic			1,127	1,46 548
Malta	6	780	18	2 102
Spain			1,139	1 59 492
Cape of Good Hope	1,297	1 29 700	526	60 512
Egypt—Port Said	5,348	5,84,920	3,251	4,04 912
Mauritius			175	20 211
South America—Callao	43	5,300		
Ceylon	1 436	1 43 600	556	57,535
Japan	1,984	1 98 400		
Straits Settlements	69	8 070	143	19,968
Sumatra			227	17,310
Bengal—Calcutta	20 027	20,12,022	25,759	25,23 170
Do —Other ports	164	19 290	981	31,657
Bombay—Bombay	23,300	23 22 600	27 926	25 16,719
Sind—Karachi			478	54 925
Madras—Madras	2 900	2 99,950	8,165	6,85 665
Do —Other ports	379	36 860	2 787	1,98 836
Provincial ports	193	22 824	1,040 1/16	99,476
Pondicherry	138	11 910	448	36 295
Total	68,049	69,06 230	90,359 1/16	89,90 041

Statement showing the Exports of Manufactures of Teakwood, &c., during 1883-84 from Rangoon and Moulmein, and the Exports of other Timber, Firewood and Sandalwood (Private and Government).

Articles	Whither exported	From Rangoon		From Moulmein	
		Quantity	Value	Quantity	Value
			Rs		Rs
Teak shingles . No	Mauritius			1 047 500	24 237
	Straits Settlements			368 000	9 053
	Sumatra			12 350	280
	Bengal—Calcutta .	400	8	415,000	8,726
	Provincial ports	11,000	355	2 153,475	44,555
	Total	11 400	363	3 996 925	86 851
Wooden sleepers (of teak and other timber) Cwt	Bengal—Calcutta	3,174	1,24,318		
	Madras—Other ports	2 700	10 625		
	Total	5,874	1,34,943		
Railway keys (teak) Cwt	Bengal—Calcutta			3,477	10 000
	Bombay—Bombay			3 613	8,847
	Total ..		.	7,090	18 847
Teak heads and staves .. C tons	Ceylon	..		80	4 003
Blocks (teak) .. Cwt					
Firewood Tons	Provincial ports			55	750
Sandalwood Val	Ditto		115	...	60
Other timber, *i e*, timber other than teak Tons	United Kingdom .	15	1 456	6	280
	France—Marseilles	¼	25		.
	Egypt—Port Said . .	5	150		
	Bengal—Calcutta .			3,682	1 98 306
	Bengal—Other ports	1	80	194	12 288
	Bombay—Bombay			341	30,352
	Madras—Madras ..			49	5 287
	Madras—Other ports	106	6,292	11	495
	Provincial ports	1	17	2,017	68 241
	Pondicherry . .			7	147
	Total	128¼	8,021	6,307	3,15,506

APPENDIX C (1).

Statement showing the Exports of Teak Timber from Moulmein during 1883-84.

Ports.	Moulmein		
	Logs.	Cubic tons	Value
			Rs
United Kingdom ...	...	10,215	19,58,713
Germany (Dantzic) ...	...	1,127	1,46,548
Malta ...	...	18	2,102
Spain (Gibraltar) ...	...	1,139	1,59,492
Cape of Good Hope ...	...	526	60,512
Egypt (Port Said) ...	...	3,251	4,04,912
Mauritius ...	...	173	20,211
Ceylon ...	...	556	57,595
Straits Settlements ...	...	143	19,963
Sumatra ...	...	227	17,310
Bengal (Calcutta) ...	...	25,759	25,23,170
Do. (other ports) ...	...	861	31,657
Bombay ...	...	27,926	25,16,719
Sind (Karachi) ...	...	478	54,925
Madras (Madras) ...	...	8,165	6,85,665
Do (other ports) ...	...	2,787	1,98,836
Provincial ports ...	...	1,040 1/16	93,476
Pondicherry ...	...	448	38,295
Total ...	...	90,359 1/16	89,90,041

APPENDIX C (2).

Statement showing the Exports of Shingles, Sleepers, Railway Keys, and Woods of other kinds from Moulmein, Tavoy, and Mergui during 1883-84.

Articles.	Whither exported.		From Moulmein		From Tavoy.		From Mergui.	
			Quantity.	Value	Quantity.	Value.	Quantity.	Value.
				Rs.		Rs.		Rs.
Other timber	United Kingdom ...	...	6	280	...	...	...	..
	Bengal (Calcutta) ...	...	3,682	1,98,306	805	31,810	...	..
	Do (other ports) ...	...	194	12,288	..	...	...	...
	Bombay ...	...	341	30,552	...	...	..	..
	Madras (Madras) ..	..	49	5,287	...	...		...
	Do. (other ports) ...	...	11	495	...	...	...	.
	Pondicherry ..	...	7	147	...	...	T. ft. in.	..
	Provincial ports ...	...	2,017	68,241	...	...	7 47 11	204
Sample planks and woods ...	Ditto ...	...	...	...	...	...	2,930 No.	28
Sandal wood ...	Ditto ...	...	...	...	20	204	5,542 viss	1,292
Thingan boats	Ditto ...	...	...	...	...	.	2	1,500
Shingles (teak) ..	Mauritius ..	No.	1,047,500	24,237	...	...	...	...
	Straits Settlements ...	..	368,000	9,053	...	...	...	...
	Sumatra .	...	12,350	280	.	...	...	...
	Bengal (Calcutta) .	...	415,600	8,726	..	...	...	. .
	Provincial ports ...	...	2,153,475	44,555	...	...	...	...
Ventilators (teak)	United Kingdom ...	...	..	1,303		...	...	...
	Malta ..	...	...	270	...	...	...	...
Do. (other timber) ...	United Kingdom .	...	...	2,715	...	...	...	..
	Egypt (Port Said) .	...	...	105	...	...	...	..
	Provincial ports ...	...	..	1,290	...	..	...	..
Teak heads and staves	Ceylon	C. tons.	80	4,003	..	...	...	...
Railway keys (teak)	Bengal (Calcutta) .	Cwt	3,477	10,000	...	...	...	...
	Bombay ..	..	5,613	6,847		...	...	...

APPENDIX C (3).

Statement showing the Exports of Minor Forest Produce from the Ports of Mergui, Tavoy, and Moulmein during 1883-84.

Articles.	Whither exported.		From Moulmein.		From Tavoy.		From Mergui.	
			Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
				Rs.		Rs.		Rs.
Gums and resins (cutch and gambier).	Egypt (Port Said) ..	Cwt.	4,527	82,364	...	...	...	.
	Madras (other ports) ...	"	2	35	...	...	..	..
Red-wood	Provincial ports ..	Viss	...	...	...	...	3,200	128
Pyu bark	Ditto ..	"	...	...	...	...	50,450	383
Rattans	Ditto .	No.	...	...	...	...	7,169,400	22,846
Akyaw-wood	Ditto ...	Viss	...	...	...	...	1,085	7,240
Firewood	Ditto ...	"	...	...	...	...	2,375	127
Wood-oil	Ditto ...	"	...	...	.	...	45,612	8,689
Torches	Ditto ...	No.	...	...	17,600	365	582,950	12,837
Honey	Ditto ...	Viss	...	...	...	...	3,986	2,108
Beeswax	Ditto ...	"	...	...	...	...	160	445
Culamay leaves ..	Ditto ...	"	...	...	...	...	2,750	130
Do. fruit ...	Ditto ...	"	...	...	.	...	790	358
Cardamoms	Ditto ...	"	...	...	5,266	5,494	115	107
Dammar	Ditto ...	"	...	...	...	...	650	72
Sapan-wood	Ditto ...	"	...	...	...	...	55,000	2,750
Bark of trees	Ditto ..	Cwt.	...	...	4,611	3,285	...	..
Chestnut (thitkyathi) ...	Ditto ...	Bkts.	..	...	256	246	...	...
Fibres	Ditto ...	Viss	...	...	...	..	7,050	471

APPENDIX C (4).

Statements showing the Imports of Timber and other Forest Produce into the Ports of Mergui, Tavoy, and Moulmein during 1883-84.

Articles.	Whence imported.		Into Moulmein		Into Tavoy.		Into Mergui.	
			Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
				Rs.		Rs.		Rs
Wood (teak)	Provincial ports	C. tons	37	3,736	39	1,263	.	.
Other timber	Provincial ports ...		220	7,196	...	.	...	..
Firewood ...	Siam .. .	Tons	6	18	...		.	...
	Straits Settlements	"	20	284	.	..	...	...
	Provincial ports .	"	23	179	55	204	...	.
Sandal-wood... ...	Straits Settlements ...	Value	...	364	.	..	...	...
	Bengal (Calcutta)	"	...	990	..	.	...	...
	Bombay (Bombay) ...	"	...	967	...	..	...	...
	Madras (Madras) ..	"	.	405	..	.		.
	Provincial ports	"	.	400	20	199	.	...
Gums and resins (cutch and gambier) ...	Ditto	Cwt.	4,473	85,190	...	..	..	
Wood-oil	Ditto ..	Galls.	400	299	246	88	.	
Bark of trees .	Ditto .	Cwt.		..	52	345	.	.
Fibre for cordage ...	Ditto ..	"		..	173	507	...	.
Dammar torches ...	Ditto .	No.		...	6,000	161	..	...
Rattans	Ditto ...	"	...	..	...	.	120,000	530

APPENDIX D.

TENASSERIM CIRCLE.

Statement of Teak and other Trees girdled and Forest Work done in Season 1883-84.

Name and No of section	By whom girdled	Name of revising officer	Forest district	Locality	Paduuk trees girdled	Trees counted by revising officer	Pyinma trees girdled	Ingyin trees girdled	Remarks
1	Forester Maung Shwe Mya		Ataran Zami	East bank: Between Mèkathit stream and its tributary the Metnan stream	..			121	
				East bank: Between Kyakat stream and the Metnan stream				67	
				East bank: Between Natchaung and the Danaung stream (on right bank of Zami)			62		
				East bank: Danaung stream (right and left banks)	9		14	4	
				East bank: Between Danaung stream and Gongyi stream (along right bank of Zami)			88		
				East bank: Between Gôngyi stream and Mèkatôk stream			62		
				East bank: Between Mèkatôk stream and Talayo stream	83		150		
				Right bank: On the left bank of the Tipado stream &c little below its mouth	33		104	2	
				Right bank: On the right bank of the Tipado stream &c little below its mouth			102		
				Right bank: Between Tipado stream and Ma u stream	72		57	6	
				Right bank: Between Maso and Taungbauk streams (along left bank of Zami)			152		
				Right bank: Between Taungbauk and Kat streams (along left bank of Zami)	3		151		
				Right bank: Above the Kat stream . .			58		
2	Forester Maung Su	C W Palmer, Deputy Conservator of Forests	Tavoy	At junction of Kan stream with Tavoy river		106	200		
3	Forest-ranger Maung Po Tu		Yunzalin .	Banks of the Yunzalin between Kadaingti and Shwepala			140		
	Forest-ranger Maung Pyu	. . .	Haungtharaw .	On the Metgathan stream, a tributary of the Haungdaraw .			200		
				Total	200	106	1,540	200	

APPENDIX D.

PEGU CIRCLE.

Statement of Teak and other Trees girdled and Forest Work done in Season 1883-84.

Name of ranger	Name of revising officer	Forest district	Locality	Teak.	Padauk.	Mamawga.	Pyinma.	Ingyin.	Thitsi.	Kanyin.	Remarks.
PROME DIVISION. Nawin range	Ranger Maung Shwe Daung	Middle Nawin	Satthwa streams	200		...	...	...	...	...	
			Kyauk stream	150	...	...	.	...	...	...	
			Between Dabi and Satthwa streams	150	.	...	...	...		...	
		North Nawin	Ngakônma stream	450	...	...	...	...	...	...	
			Puttaya stream	50	..	.	...	..	...	...	
			Total	1,000	.		...	...	...	...	In unreserved forest.
Myedè range	Ranger Maung Kyaw Dun.	Myedè	Between Bagôn and Lettetmyaung	350		...	...	...	...	.	
			Between Shwelaung and Bagôn	650	..	...	...	...	...	...	
			Total	1,000	..	...		...	.	..	In unreserved forest.
			Total Prome	2,000	..	..	...	...	.	..	
THARRAWADDY DIVISION. Shwele range	Ranger Maung Chit Su	Shwele	*South stream—*								
			Thème forest	377	...	...	..	..	...	...	
			Chauktaya forest	91	...	...	..	...	...	...	
			Gyobinaing forest	55	...	...	...	...	...	...	
			Magèsan forest	174	...	...	...	...	...	...	
			Singyan forest	288	...	...	...	...	...	...	
			Kaukkyidaung forest	231	...	...	...	...	...	...	
			Shawbyu forest	190	...	...	...	...	...	...	
	Timber-measurer Maung Shwe Tu		Thitgaungti forest	526	...	...	...	...	...	...	
			Kyaikwin forest	122	...	..	...	...	...	...	
			Leikkwé forest	264	...	...	...	...	..	...	
			Ingyinbin forest	49	...	...	...	...	...	..	
			Gwechaung forest	59	...	...	...	...	...	...	
			Kyaukgyidaung forest	81	...	...	...	...	...	...	
			Pinzeik forest	78	...	..	...	...	...	...	
			Lese forest	91	...	..	...	...	..	...	
			Gyobintha forest	320	...	...	...	...	...	...	
			Total	2,996	...	...	...	...	..	...	In unreserved forest.
	Ranger Chit Su		*North stream—*								
			Thayettabin forest	190	...	...	...	...	..	.	
	Timber-measurer Maung Shwe Tu		Gwedaukkwin forest	237	...	...	...	...	...		
			Myebya forest	255	...	...	...	...	...	...	
			Myebya forest	217	...	...	..	...	.	...	
			Aleywa forest	285	...	..	...	..	.	...	
			Total	1,184	...	...	...	...	...	...	In unreserved forest.

Statement of Teak and other Trees girdled and Forest Work done in Season 1883-84—(continued).

	Name of range.	Name of revising officer.	Forest district.	Locality.	Teak.	Padauk.	Maniawga.	Pyinma.	Ingyin.	Thitsi.	Kanyin.	Remarks.
THARRAWADDY DIVISION (concluded).	Taungnyo Bawbin range.	Ranger Chit Su Timber-measurer Maung Shwe Tu.	Minbu ...	South Kyaukkwet forest	211	...	...	...	...	...	...	
				North Kyaukkwet forest	65	...	...	...	...	...	...	
				Ônhnè Kau forest	208	...	...	...	...	...	...	
				Nyaungbinbo forest	36	...	...	..	...	...	...	
				Total ...	520	...	...	...	...	...	...	In unreserved forest.
	Bilin range ...	Mr. P. J. Carter, Deputy Conservator.	Môkka ...	*South Môkka block*— Compartment No. 5	73	...	...	...	...	...	...	
				Do. „ 6	127	...	...	...	..	...	...	
				Total ...	200	...	...	...	...	...	...	Inside reserve.
				Total Tharrawaddy ...	4,900	...	...	...	...	...	...	
RANGOON DIVISION.	Pegu range ...	Ranger Maung Gauk	Pyinma stream ...	Myauk stream	738	...	...	...	...	...	...	
				Taung stream	62	...	..	...	...	...	...	
			Paunglin, East of main stream ..	Kyat stream feeder of Mahuya stream	...	...	...	125	...	...	...	
				Shaukmyaung	...	..	...	31	...	...	...	
				Kayu stream	...	...	...	263	...	...	...	
				Kaindagyi	...	...	...	53	...	...	...	
				Ôngnebin	...	...	...	18	...	...	...	
	Paunglin range ...	Ranger Rozario ...	Paunglin, West of main stream ..	Kyetpyudaung	...	...	...	78	...	...	...	
				Chebu	...	...	...	22	...	...	...	
				Sintu stream	...	.	..	34	...	...	...	
				Mota	...	...	...	20	...	...	...	
				Mataya stream	..	...	...	7	...	...	...	
				Kalanmyaung	...	...	...	10	...	...	...	
				Wanet stream	...	...	...	59	..	...	...	
				Kyat stream	...	...	...	28	...	...	...	
				Peinin	...	...	...	20	...	...	...	
				Shwepyu stream	...	...	...	17	...	...	...	
				Hmangumyaung	...	...	...	2	...	...	...	
				Ngapi-in	...	...	...	78	...	...	...	
				South Ngapi-in	...	...	...	27	...	...	...	
				U yin stream	...	...	...	108	..	...	...	
				Total Rangoon ...	800	...	...	1,000	...	...	...	In unreserved forest.
TOUNGOO DIVISION.	Thagaya range	Probationer Maung Shwe Gôn.	Minyèsaing reserve	Between Magu and Minyè streams	258	...	...	...	...	...	...	
				Between Minyè and Myazeik streams	176	...	...	...	...	...	...	
				Between Minyè and Têmyaung	304	...	...	...	...	...	...	
				Between Myazeik and South Bahan streams	482	...	...	...	...	...	...	
				Between Bahan and Thinbanmyaung	437	...	...	...	...	...	...	
				Between Bahan and Minumyaung	251	...	...	...	...	...	...	
				Between Minu and Thinbanmyaung	56	...	...	...	...	...	...	
				Between Thinban and Myaunggyi	401	...	...	...	...	...	...	
				Between Minu and Myaunggyi	197	..	...	...	...	...	...	
				Between Myaunggyi and Kodugwè streams	102	...	...	...	...	...	...	
				Between Minu and Kodugwè streams	160	...	..	...	...	...	...	
				Between Myaunggyi stream and the frontier	335	..	...	...	...	...	...	

Toungoo Division—(concluded).	Ditto.	Ditto	Kya and Pyan streams, Saing reserve.	Between Kyat and Ngayôk streams	262	...	...	...	...	...	...	
				Between east feeders of Kya stream	206	...	...	...	...	...	...	
				Between Kya and Pyan streams	314	...	...	...	...	...	...	
				Between Pyan stream, north feeders	214	...	...	...	...	...	...	
				Between feeders of Po-u-hla stream	126	...	...	...	...	...	...	
				At source of Pyan stream	269	...	...	...	...	...	...	
				Upper Pyan stream	311	...	...	...	...	...	...	
				Lower Pyan stream, east	268	...	...	...	...	...	...	
				Lower Pyan stream, west	373	...	...	...	...	...	...	
				Beinbwè stream and feeders	278	...	...	...	...	...	...	
				Total	6,500	...	...	...	...	...	...	Inside reserves.
		Ranger Maung Yaing	Wayèsaing valley	East of Mwehauk stream	224	...	...	...	...	...	...	
				West of Mwehauk stream	189	...	...	...	...	...	...	
				At source of Mwehauk stream	587	...	...	...	...	...	...	
		Ditto	Swa	North of Singaung stream	143	..	...	...	...	...	...	
				Between Singaung and Mayin stream	544	...	...	...	...	...	...	
				Between Mayin and Kadan	313	...	...	...	...	...	...	
				Total	2,000	..	...	...	...	...	...	Outside reserve.
	Bônmadi range	Ranger C. Ingram	Yaukthawa	Metwa stream	...	100	...	...	...	...	...	
				Yaukthawa stream	..	...	...	310	...	...	...	
				West of Bônmadi and Zigôn	.	...	...	658	...	...	...	
				Total Toungoo	8,500	100	...	968	...	...	...	
Shwegyin Division.	Baunee and Sittaung ranges.	Mr. T. A. Hauxwell, Assistant Conservator.	.....	North bank of Maung stream	...	...	...	500	...	...	...	Girdled under previous year's sanction.
				Chaunggyo	...	...	...	...	...	...	200	
				Dônzauk	...	...	...	...	...	100	..	
				Total Shwegyin	...	...	...	500	...	100	200	
Western Division		.....	Henzada	Kanyin stream	105	...	..	...	...	..	...	Illicitly girdled by a contractor.
				Total Pegu Circle	16,305	100	...	2,468	...	100	200	
				Total British Burma	16,305	300	...	4,008	200	100	200	

APPENDIX E

Statement of Outturn of Foreign Timber for the five years 1879 80 to 1883-84.

Name of forest.	1879 80				1880-81				1881-82				1882-83.				1883-84.			
	Logs	Tons.	Pieces	Tons	Logs	Tons.	Pieces	Tons.	Logs	Tons	Pieces	Tons	Logs	Tons	Pieces	Tons.	Logs	Tons	Pieces	Tons
Karani	67,899	81,146	1,436	861	60,966	75,397	878	745	52,235	78,352	1,069	962	58,518	77,777	3,353	2,682	78 539	89,629	4,879	2,927
Kyeintaung	12,450	14 907	407	244	8 299	11 688	316	352	7,022	10,533	515	360	6,840	8,300	2,955	1,964	15,063	17,171	8,295	4,977
Himainglôngyi	13,245	15,868	51	30	5,772	7,237	74	59	7,455	11,182	476	380	5,668	8,502	1,316	1 053	3,816	5 350	980	668
Thaungyin	9,663	10 099	5,088	3,052	6,192	7,978	2,639	2,311	14 282	14,282	5,157	3,610	24 092	24,092	6,614	5,291	29,876	34 058		9,819
Dagwin	1,072	1 202	226	135	2,413	2,992	402	321	6 028	9,042	838	587	7,096	10 644	366	299	3,735	4 660	203	121
Total	104,329	123,222	7,208	4,322	83,642	105,292	4,309	3,788	87 022	123 391	8 055	5,899	102,214	129,315	14 604	11 289	131,029	150,868	30,722	18,532

APPENDIX F.

Statement showing the Exports of Timber and other Forest Produce from Moulmein during the year 1883-84.

Articles and countries to which exported	Denomination	Quantity	Value
			Rs
Wood, teak—			
To United Kingdom	C tons	16,215	19,58,713
" Germany, Dantzic	"	1,127	1,46,548
" Malta	"	18	2 102
" Spain, Gibraltar	"	1,130	1,59 493
" Cape of Good Hope	"	526	60,512
" Egypt, Port Said	"	3,251	4,04 912
" Mauritius	"	173	20,211
" Ceylon	"	556	57,535
" Straits Settlements	"	143	19,963
" Sumatra	"	227	17,310
" Pondicherry	"	448	38,295
Total Foreign	"	23,823	28,85,593
To Bengal, Calcutta	"	25,759	25,23,170
" Do, other ports	"	981	31,657
" Bombay, Bombay	"	27,926	25,16,719
" Sind Karachi	"	478	54,925
" Madras, Madras	"	8,165	6,85,665
" Do, other ports	"	2,787	1,98,836
Total Home	"	65,496	60,10,972
To Provincial ports	"	1,040 1/16	93,476
Total Teak	"	90 359 1/16	89 90,041
Other Timber—			
Pondicherry	"	7	147
To United Kingdom	"	6	280
Total Timber	"	13	427
To Bengal, Calcutta	"	3,682	1,98,306
" Do, other ports	"	194	12,288
" Bombay, Bombay	"	341	30,552
" Madras, Madras	"	49	5,287
" Do, other ports	"	11	495
Total Home	"	4 277	2 46,928
To Provincial ports	"	2,017	68,241
Total Other Timber	"	6,307	3,15,596
Wood manufactures, shingles, teak—			
To Mauritius	No	1,047,500	24,237
" Straits Settlements	"	368 000	9,053
" Sumatra	"	12,350	280
Total Foreign	"	1,426,850	33,570
Shingles teak—			
To Bengal, Calcutta	"	415,600	8,726
" Provincial ports	"	2,153,475	44,555
Ventilators, teak—			
To United Kingdom	Value		1,303
" Malta	"		270
Total Foreign	"		1,573
Ventilators, other timber—			
To United Kingdom	"		2,715
" Egypt, Port Said	"		105
Total Foreign	"		2,820
To Provincial ports	"		1 230
Teak Heads and Staves—			
To Ceylon	C tons	90	4 009
Railway Keys, teak—			
To Bengal, Calcutta	Cwt.	3,477	10,000
" Bombay, Bombay	"	3 613	8 847
Total Home	"		18,847
Total Wood Manufactures	"		1,15,324
Gums and Resins, cutch and gambier—			
To Egypt, Port Said	"	4,527	82,364
" Madras, other ports	"	2	35
Total Gums and Resins	"	4,529	82,399
Lac, stick—			
To Straits Settlements	"	81	1 000
Wood-oil—			
To Bombay Bombay	Galls	160	200
" Madras, Madras	"	1,082	651
" Do, other ports	"	408	306
Total Home	"	1,650	1,157
To Provincial ports	"	680	510
Total Wood-oil	"	2,330	1,667

APPENDIX G.

Summary of Revenue of the different Divisions during 1883-84.

Budget head receipts.	Direction.	Salween division.	East Salween division.	West Salween division.	Ataran division.	Kado division.	Tavoy division.	Mergui division.	Total
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—									
a. Timber	.....	1,14,888 9 10	1,79,515 7 0	64,543 0 0	68,420 6 6	.....	40,071 7 5	.....	4,67,438 14 9*
b. Firewood and charcoal	.....	.....	.....	.....	.....	.....	.....	.....	
c. Bamboos	.....	.....	.....	.....	.....	.....	.....	.....	.....
d. Sandalwood	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	.....	.....	.....	.....	.....	.....	.....	.....
II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS—									
a. Timber	.....	8,357 0 1	10,714 13 4	5,487 12 9	22,317 0 0	.....	6,923 8 0	3,569 5 0	57,369 7 2
b. Firewood and charcoal	.....	64 8 0	.....	.....	.....	.....	82 8 0	.....	147 0 0
c. Bamboos	.....	...	.....	.....	.....	.....	.....	.....	.....
d. Grazing and fodder grass	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Other minor produce	.....	584 0 0	.....	.....	4 0 0	...	1,773 8 0	1,250 0 0	3,611 8 0
III.—CONFISCATED DRIFT AND WAIF WOOD	.....	.....	.....	.....	.....	69,651 3 4	301 8 0	.....	69,952 11 4
IV.—REVENUE FROM FORESTS NOT MANAGED BY GOVERNMENT—									
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	40,202 9 0	.....	.....	40,202 9 0
b. Revenue from shared and private forests	.....	.....	.....	.....	.....	.....	.....	.....	.....
V.—MISCELLANEOUS—									
a. Fines and forfeitures	.....	1,122 0 0	.....	145 0 0	50 0 0	.....	167 0 0	15 0 0	1,480 0 0
b. Refunds	67 6 11	4 9 3	0 5 0	.....	6 3 6	.....	.....	.....	78 8 8
c. Other sources	.....	767 8 0	.....	..	.	15,364 4 8	227 12 8	.....	16,378 9 4
Total Receipts ...	67 6 11	1,25,788 3 2	1,90,230 9 4	70,175 12 9	90,797 10 0	1,25,218 1 0	49,547 4 1	4,827 5 0	6,56,652 4 3*

* A subsequent addition of Rs. 1,395-3-0 made by Comptroller is not included in this statement as details are not available for distributing it to the different divisions.

APPENDIX G.

Summary of Expenditure of the different Divisions for 1883-84.

Budget heads.	Direction.	Salween division.	East Salween division.	West Salween division.	Ataran division.	Kado division.	Tavoy division.	Mergui division.	Total
A.—CONSERVANCY AND WORKS.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—									
a. Timber	...	26,920 7 7	1,05,903 12 8	43,908 1 9	40,784 3 8	...	36,039 12 3	...	2,53,556 5 11
b. Firewood and charcoal	...	...	...	...	...	...	...	...	...
c. Bamboos	...	...	...	...	...	...	...	...	...
d. Sandal-wood	...	...	...	...	...	...	...	...	...
e. Grass and other minor produce	...	...	...	...	...	...	...	...	...
II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS	...	13 0 0	...	...	53 0 0	...	18 8 2	...	84 8 2
III.—CONFISCATED, DRIFT, AND WAIF WOOD	...	...	...	...	...	15,835 6 10	207 3 8	...	46,042 10 6
IV.—REVENUE FROM FORESTS NOT MANAGED BY GOVERNMENT—									
a. Duty on foreign timber and other forest produce	...	...	...	...	...	...	...	...	...
b. Revenue from shared and private forests	...	...	...	...	...	...	...	...	...
V.—RENT OF LEASED FORESTS AND PAYMENTS TO SHAREHOLDERS IN FORESTS MANAGED BY GOVERNMENT	...	...	...	...	...	...	...	...	...
VI.—LIVESTOCK, STORES, TOOLS AND PLANT—									
a. Purchase of cattle	...	...	865 0 0	865 12 0	1,781 8 0	...	...	...	3,512 4 0
b. Feed and keep of cattle	...	1,470 13 0	338 13 3	290 0 0	216 13 0	...	...	...	2,316 7 3
c. Stores, tools and plant	19 8 0	5,098 7 0	1,155 9 3	149 3 0	979 14 3	1,243 2 0	165 2 1	...	8,810 13 7
VII.—COMMUNICATIONS AND BUILDINGS—									
a. Roads and bridges	...	...	...	...	...	...	...	...	...
b. Buildings	...	...	48 15 0	87 8 0	14 8 0	...	1 4 0	73 3 0	225 6 0
c. Other works	...	...	0 8 0	30 0 0	...	...	1,941 0 0	41 8 0	2,013 0 0
VIII.—DEMARCATION, IMPROVEMENT, AND EXTENSION OF FORESTS—									
a. Demarcation	...	...	495 14 0	3 8 0	361 6 9	...	577 4 8	...	1,438 1 5
b. Compensation for land and rights	...	...	200 0 0	...	...	...	...	...	200 0 0
c. Surveys and working-plans	10 0 0	15 0 0	...	...	10 0 0	...	...	...	35 0 0
d. Plantations	...	17 9 0	6 2 0	1,565 11 5	680 10 4	...	...	1,549 1 5	3,819 2 2
e. Protection from fire	...	...	850 15 8	1,022 5 9	388 6 0	...	...	...	2,261 11 5
f. Other works	...	...	20 0 0	...	...	...	77 8 0	...	97 8 0
IX.—MISCELLANEOUS—									
a. Refunds	...	1,373 0 0	...	...	...	...	...	...	1,373 0 0
b. Law charges	...	57 0 0	34 11 0	...	...	53 0 0	...	...	144 11 0
c. Other charges	14 12 0	1,165 6 0	...	...	6 0 0	...	70 0 0	85 11 9	1,341 13 9
Total A.—Conservancy and Works	44 4 0	36,130 10 7	1,09,920 4 10	47,922 1 11	45,276 6 0	47,131 8 10	39,097 10 10	1,749 8 2	3,27,272 7 2
B.—ESTABLISHMENTS.									
I.—SALARIES—									
a. Conservators	18,000 0 0	...	...	...	...	...	...	...	18,000 0 0
b. Superior officers	...	10,114 8 3	4,900 0 0	5,963 0 9	3,127 6 8	...	6,636 9 0	...	30,921 8 8
c. Subordinate forest and depot establishments	...	785 0 0	2,511 7 6	1,750 0 0	1,314 2 0	5,987 8 0	1,008 0 0	...	13,356 1 6
d. Office establishments	5,193 5 0	2,656 0 0	463 14 9	504 0 0	466 0 0	4,980 0 0	523 0 0	...	14,786 3 9
e. Deputation and special allowances	...	...	...	...	...	...	...	...	...
II.—TRAVELLING ALLOWANCES—									
a. Conservators	1,443 14 0	...	...	...	...	...	...	...	1,443 14 0
b. Superior officers	...	150 12 0	1,666 8 0	938 12 0	518 4 0	...	1,276 8 1	...	4,550 12 1
c. Subordinate forest and depôt establishments	...	136 5 4	...	250 8 0	84 5 4	240 0 0	...	...	711 2 8
d. Office establishments	177 8 0	...	...	32 4 0	37 14 8	...	24 0 0	...	271 10 8
III.—CONTINGENCIES—									
a. Stationery	1 12 0	...	...	...	...	...	...	...	1 12 0
b. Carriage of tents and records	...	...	...	...	...	...	...	...	...
c. Rents, rates, and taxes	...	32 9 0	...	...	...	18 6 0	259 5 6	...	310 4 6
d. Pay of police guards	...	...	...	...	...	...	...	...	...
e. Official postage	60 0 0	78 2 0	...	...	...	...	37 15 0	5 0 0	181 1 0
f. Sundries	236 7 6	911 6 4	447 8 0	88 10 0	125 6 0	93 4 0	151 7 6	...	2,054 1 4
Total B.—Establishments	25,112 14 6	14,864 10 11	9,989 6 3	9,527 2 9	5,673 6 8	11,319 2 0	10,106 13 1	5 0 0	86,598 8 2
GRAND TOTAL OF EXPENDITURE	25,157 2 6	50,995 5 6	1,19,909 11 1	57,449 4 8	50,949 12 8	58,450 10 10	49,204 7 11	1,754 8 2	4,13,870 15 4

APPENDIX H.

TENASSERIM CIRCLE.

Number of Logs imported by the principal Thitgaungs during the year 1883-84.

No.	Names.	Number of logs.
1	Ko Bauk	14,171
2	Myin Mo Taga	10,429
3	Ko Taw A	9,850
4	Maung Kyi	8,781
5	Maung Ké	6,865
6	Ko Lu Gale	4,691
7	Maung Po	4,623
8	Ko Mo	4,415
9	Ko Tha Huyin	4,293
10	Ko Kye	3,952
11	Ma Swin	3,589
12	Ko Pôn	3,165
13	Maung Chit Lauk	2,970
14	Maung Pan	2,623
15	Maung Ba Sin	2,559
16	Ko Aung	2,283
17	Maung Yan	2,309
18	Ko Tha Ya	1,658
19	Ko Ba Pe	1,519
20	Maung Nut	1,351
21	Maung Kya Nyun	1,268
22	Ko Tu	426

APPENDIX I.

TENASSERIM CIRCLE.

List showing the Names of the principal Exporters of Teak from the 1st April 1883 to the 31st March 1884.

Name of firm.	Tons.	Remarks
Messrs. The Bombay Burma Trading Corporation, Limited	12,611	
M. Bullubdass	10,249	
Messrs. W Strang, Steel and Co.	9,784	
Messrs. Aga Syed Abdul Hossein and Co.	9,257	
Messrs. T. D. Findlay Bodeker and Co.	8,850	
Bugwandass	6,910	
Messrs. A. Vintzen and Co.	6,661	
Messrs. F. Foucar and Co.	5,800	
Messrs. H. Kruger and Co.	1,700	
Total	71,412	

APPENDIX J.

TENASSERIM CIRCLE.

Statement showing the Sale Prices of Timber at Home during each month of the official year 1883-84.

Month	Sale price of timber per ton. From £. s. d.	To £. s. d.	Freight per ton. s. s.	Remarks.
April 1883	14 10 0	14 15 0	50 to 55	Sailing vessels.
May "	14 10 0	14 15 0	50 to 55	ditto
June "	14 10 0	15 0 0	50 to 55	ditto.
July "	14 10 0	15 0 0	50 to 55	ditto.
August "	15 0 0	15 10 0	60	ditto.
September "	15 0 0	15 10 0	60 to 65	ditto,
October "	15 10 0	16 0 0	57-6 to 60	ditto.
November "	15 10 0	16 0 0	65	Three steamers chartered at this rate.
December "	15 0 0	15 10 0	50 to 55	Sailing vessels.
January 1884	15 0 0	15 10 0	47-6 to 50	ditto.
February "	14 10 0	15 0 0	47-6 to 50	ditto.
March "	14 10 0	15 0 0	45 to 47-6	ditto.

APPENDIX K.

Statement showing the Market Rate of Teak Timber in the Indian Market for the year 1883-84.

		Bombay.				Calcutta.			
		Squares		*Scantlings*		*Squares.*		*Scantlings, broad.*	
		From	To	From	To	From	To	From	To
April	1883	100	110	100	110	110	120	100	110
May	"	100	110	100	110	100	110	100	110
June	"	95	105	100	110	100	110	100	110
July	"	90	105	100	110	110	120	110	120
August	"	90	110	100	115	100	110	105	115
September	"	100	115	70	78	100	115	90	100
October	"	100	110	90	110	115	120	100	120
November	"	90	105	90	110	105	110	110	120
December	"	90	105	90	110	100	120	100	120
January	1884	80	95	95	110	100	110	100	105
February	"	85	95	95	110	100	110	120	130
March	"	75	85	95	110	100	110	110	120

APPENDIX L.

Pegu Circle.

Selling Rates in Home Market for 1883-84—Churchill and Sims.

		£ s. d.		£ s. d.
April	1883	15 10 0	to	16 10 0
May	"	15 10 0	to	16 10 0
June	"	15 10 0	to	16 10 0
July	"	15 10 0	to	16 10 0
August	"	15 10 0	to	16 10 0
September	"	15 10 0	to	16 10 0
October	"	15 10 0	to	17 0 0
November	"	15 10 0	to	17 0 0
December	"	15 10 0	to	17 0 0
January	1884	15 10 0	to	17 0 0
February	"	15 10 0	to	17 0 0
March	"	15 10 0	to	17 0 0

Average of Sales at Rangoon Central Depôt, 1883-84.

Month.		Class I. Per ton.	Class II. Per ton.
		Rs. A. P.	Rs. A. P.
April	1883	...	...
May	"	66 7 9	40 5 7
June	"	74 1 4	46 4 0
July	"	...	57 6 0
August	"	...	57 11 5
September	"	...	52 6 1
October	"	102 12 0	60 9 0
November	"	88 8 7	60 10 0
December	"	79 7 7	61 15 0
January	1884	...	...
February	"	59 13 5	...
March	"	63 3 2	...

APPENDIX M.

Return of Junglewoods and Bamboos passed at the Government Timber Depôt and Pazundaung Revenue Station from the 1st April 1883 to the 31st March 1884.

Description of timber.		Logs.	Total.	Remarks.
Logs	In	11,082	...	Sold in the market at Rs A P. 7 5 8 per log.
	Kanyin	1,293	...	Ditto 15 14 4 do.
	Thayet	4,395	...	Ditto 7 12 0 do.
	Pyingado	3,004	...	Ditto 8 3 7 do.
	Pyinma	508	...	Ditto 9 14 8 do.
	Hnaw	111	...	Ditto 9 8 0 do.
	Firewood	515	...	Ditto 1 15 10 do.
	Plank	322	22,520	Ditto 0 7 2 do.
	Boats (canoe)	53	53	Ditto 70 15 4 to 99 2 1 each.
Bamboos	Hmyin	4,474,400	...	Ditto 250 to 300 per 100.
	Kyathaung	370,300	...	Ditto 400 to 450 do.
	Tin	182,250	...	Ditto 350 to 400 do.
	Talagu	9,200	2,030,150	Ditto 325 to 375 do.
	Grand Total	...	2,058,723	

APPENDIX N.

No. 52 —(Forests).—*The 23rd August 1883.*—The following revised rule is published in supersession of Rule 8 in section II of the Rules under the Burma Forest Act, 1881, published under this Department notification No. 11, dated the 10th January 1883.

Section 37, clauses (*c*) and (*g*).

8. No person shall cut, saw, convert, or remove trees or timber other than reserved trees, with the exception of bamboos, on any land at the disposal of Government, unless either—

(*a*) such trees or timber are cut, sawn converted, or removed for the building of bridges, resthouses, or other works of public utility, or for use, within five miles of the place in which such trees and timber are produced, for *bonâ fide* agricultural fishery, or domestic purposes; or

(*b*) such trees or timber are cut, sawn, converted, or removed under and subject to the conditions of a license granted by the Deputy Commissioner or Forest Officer of the district, or by any officer empowered by the Deputy Commissioner in that behalf, in one or other of the forms Nos. VI, VII, VIII, and IX given in the appendix to these rules.

No. 61.—The following revised rule and revised form are published in supersession of Rule No. 17 and Form No. II of the directions for the management of the Kado timber station at Moulmein, published under this Department notification No. 4 (Forests), dated the 10th January 1883 :—

17. Private wharves may be allotted to timber traders by the Officer in charge of the Salween division on the following conditions and on such other conditions as to the said officer may seem right, namely,—

(*a*) that the wharf shall be used for the storage of timber only;

(*b*) that the term of occupancy shall not exceed one year;

(*c*) that all timber stored at the wharf shall be secured and kept in safety by the owner thereof, no responsibility in respect thereto being undertaken by the officer in charge of the Salween division;

(*d*) that the occupant of the wharf shall maintain a watchman in charge of the wharf, and that the watching rate to be charged by the said watchman in respect of timber belonging to any person not being the occupant of a wharf shall not exceed such maximum rate as may from time to time be fixed by the Forest Officer;

(*e*) that the said watchman, although paid by the occupant, shall be under the control of the said officer in all matters relating to the storage of the timber and the due enforcement of the rules in force at the Kado timber station; that the said officer shall have the right to refuse his consent, for reasons to be recorded by him in writing, to the appointment of any watchman not approved by him, and the right to expel any watchman from the station for disobedience of orders or misbehaviour, and that the watchman's name shall be registered;

(*f*) that the occupant shall maintain the board and post showing the number of the wharf at his own expense in good condition;

(*g*) that if the occupant breaks any of the conditions on which he is allowed to occupy the wharf, the license to occupy shall at once cease and determine; and on such determination all his timber stored on the wharf shall become liable for wharfage at the rate laid down by the said officer for public wharves (see Form II attached to these directions).

PROGRESS REPORT

ON

FOREST ADMINISTRATION

IN

BRITISH BURMA

FOR

1884-85.

By Lieut.-Colonel W. J. SEATON and E. P. POPERT, Esq.,
CONSERVATORS OF FORESTS,

WITH A REVIEW BY THE CHIEF COMMISSIONER, AND THE ORDERS OF THE GOVERNMENT OF INDIA.

RANGOON:
PRINTED AT THE GOVERNMENT PRESS.
1885.

No. 1125 F., dated Calcutta, the 3rd December 1885.

From—A. MACKENZIE, Esq., C.S., Secretary to the Government of India.

To—The Chief Commissioner of British Burma.

I am directed to acknowledge the receipt of your letter No. 701—22 M., dated the 30th September last, submitting the Report of Forest Administration in British Burma for the year 1884-85, with your Resolution thereon.

2. The formation of Reserves has been continued during the year under review, though with somewhat less favourable results than in the previous year, when 332 square miles were added. The changes in the areas are as follow:—

	Forest area.	Taungya area.	Total.
	S. ms.	S. ms.	S. ms.
Reserved on 1st April 1884	3,347	412	3,759
Added during the year	181	2	183
Total on 31st March 1885 ...	3,528	414	3,942

The areas of Reserves are distributed between the two Circles as follow:—

Circle.	Forest area.	Taungya area.	Total.
	S. ms.	S. ms.	S. ms.
Pegu	2,824	402	3,226
Tenasserim	704	12	716
TOTAL ...	3,528	414	3,942.

The area of Reserved Forests now exceeds, it is true, the proposals made by Mr. Brandis in his "Suggestions" of 1881; but, as these proposals were of a temporary nature only, and as the area at present reserved amounts in the Pegu Circle to less than 7½ per cent. of the whole area, and in the Tenasserim Circle to only 2 per cent., if the Karen allotments are left out of calculation, and to 9 and 2 per cent. respectively, if these areas are taken into account, it is satisfactory to notice that the formation of Reserves is still to receive attention. It is observed that the attempt to create State Reserves in the cutch tracts of the Thayetmyo District has been abandoned for the present, and that the formation of village cutch forests is under contemplation, the management of which is to be undertaken by a committee of villagers under the rules appended to the Report. This experiment will be watched with great interest, and I am to request that its progress may be reported upon from time to time.

The Report under review shows that the necessary attention has been paid to the maintenance of the boundaries of the State Reserves.

3. The Topographical Survey Department completed during the year the survey of 315 square miles on the 4-inch scale, at a cost of about Rs. 320 per square mile, and 37 square miles on the 2-inch scale, costing about Rs. 135 per square mile. The cost of

the survey of the State Reserves has, therefore, remained stationary, and that of the outlying forests, which become more open towards the north, has decreased by about Rs. 40 per square mile. The total cost of the Forest Survey amounted to Rs. 1,05,000. The survey revealed the fact that the area formerly accepted for the Kon Bilin Reserve was five square miles less than the true area, and that of the Mokka and Kadin Bilin Reserves 24 square miles in excess.

4. Mr. Popert's remarks on the progress made by the Working-Plans Division have been read with great interest. They show that the work has been taken in hand in a careful and business-like manner, and that a considerable advance has been made during the year. It has been ascertained that the forests comprised in the Mokka and Bilin Reserves contain 63,000 marketable trees, 70,000 of the second and 139,000 of the 3rd class, and that the classes below one foot diameter are well represented. This will probably permit of an annual outturn largely in excess of the estimate arrived at in 1879. Nearly 129 square miles have been brought under the operations of the Working-Plans Division, and the cost of the work has been reduced from Rs. 142 to Rs. 137 per square mile Both progress and cost would probably be more favourable if the Topographical Survey was further in advance of the work and no delays were caused for want of maps.

5. The following table shows only a very slight increase in the number of prosecutions for breaches of forest rules, but the percentage of convictions has fallen in the Tenasserim Circle from 86 to 75 :—

Circle.	Number of new Cases			Percentage of convictions to total number of cases decided by the Courts
	Taken into Court.	Compounded.	Total.	
Pegu	115	61	176	87
Tenasserim	79	3	82	75
Total in 1884-85 ...	194	64	258	82
" " 1883-84 ...	193	57	250	87
Increase or decrease in 1884-85 ...	1	7	8	—5

6. The following table shows the results of fire-protection, as compared with those of the previous year :—

Circle	Area attempted	Failures	Area protected	Percentage of failures to area attempted	Cost per square mile protected
	S ms.	S. ms.	S ms.		Rs
Pegu	165	5	160	3	65
Tenasserim	127	12	115	9	43
Total in 1884-85 ...	292	17	275	6	56
" " 1883-84 ...	286	25	261	9	54
Increase or decrease in 1884-85	6	—8	14	—3	2

The increase of the area actually protected from fire amounts to 14 square miles, and the proportion of failures has been reduced by 3 per cent. This is satisfactory; but the cost of

protection has again risen, and, what is more to be regretted, the area burnt contained 568 acres of plantations. The area annually protected is still disproportionately small to the importance and value of the Burma forests, and the extension of fire-protection, even at the present high cost, must be kept steadily in view. The cost per acre will, experience has shown everywhere, largely decrease as larger areas are taken in hand; but, at the same time, I am to suggest for consideration whether it would not be possible to reduce the high expenditure, and to facilitate the introduction of a more extended system of fire conservancy by a more severe control of the annual external jungle fires and their causes. These fires, it is understood, are at present kindled unrestrictedly and rage through the length and breadth of all forests and waste, except those which are directly protected by either nature or man. The Governor General in Council freely acknowledges the magnitude and difficulty of the question, and does not desire that any rapid changes should be enforced, or that customs should be abruptly interfered with; but it should be the ultimate aim to instruct the people of the country that it is not sufficient for each individual or community to protect their own yahs, crops, or houses from jungle fires by burning down the dry grass and other inflammable material round about them, but that it is their duty to prevent their fire-tracing and burning from spreading beyond a certain limit. What can be done in this direction is proved by the results among the Karen tribes to the east of Toungoo, where, by combined action and due regulation of firing, almost entire immunity from jungle fires is insured, though taungya cultivation is practised.

7. The following table shows the progress made during the year in sowing and planting :—

	Area at the commencement of the year	Area added during the year	Area at the close of the year
	Acres	Acres	Acres
Regular Plantations	3,635	58	3,693
Taungya „	6,459	1,690	8,149
Cultural operations	3,321	...	3,321
TOTAL ...	13,415	1,748	15,163

The area cultivated up to date is divided between the two Circles as follows :—

Circle	Regular Plantations	Taungya Plantations	Cultural Operations	Total
	Acres	Acres	Acres	Acres
Pegu	3 670	6,333	3,213	13,216
Tenasserim	23	1,816	108	1,947
TOTAL .	3,693	8,149	3,321	15,163

The progress made in this respect is again eminently satisfactory, and more especially so in the Pegu Circle. The area of teak and

cutch taungya cultivation was 362 acres in excess of that of the previous year. Other cultural operations in the forests depend to a great extent on the flowering of bamboos, and none took place during the year. Creeper cutting and weeding have apparently received the necessary attention in both Circles, and His Excellency in Council notices with pleasure that the work of protecting young teak trees from suppression by trees of other kinds has been judiciously continued. Works of this nature cannot but have the most beneficial results on the future mature crop, and largely tend to enhance the value of the Forest property.

8. The following table exhibits the girdling operations of the year under review, as compared with those of the previous year:—

Circle.	Teak			Other Trees
	Inside Reserves	Outside Reserves	Total	
Pegu	1,731	13,715	15,446	2,885
Tenasserim	2,054	646	2,700	3,124
Total in 1884-85 ...	3,785	14,361	18,146	6,009
" " 1883-84 ..	6,700	9,605	16,305	4,808
Increase or decrease in 1884-85 ...	—2,915	4,756	1,841	1,201

The total number of teak trees girdled in the Pegu Circle is 446 in excess of Mr. Brandis' forecast of 1880; but, on the one hand, the number of marketable teak trees outside Reserves had been largely under-estimated at that time, and, on the other, it has been found, on a detailed examination of the Thônzè Forest, that 1,000 trees may be cut per annum, instead of 300 as provided in Mr. Brandis' forecast. In the Tenasserim Circle 1,700 teak trees were girdled in excess of Mr. Brandis' proposals, and I am to request that information (which cannot be gleaned from the Tenasserim Circle Report) may be furnished as to whether it is intended that girdling operations should be hereafter suspended in that Circle for a period, as suggested in paragraph 240 of Mr. Brandis' proposals, or whether sufficient information has of late years been gathered regarding the state of the Tenasserim forests to warrant a supersession of the forecast of 1880.

9. The yield of the forests, as summarised under the different main heads in paragraph 14 of your Resolution, was as follows:—

	Teak	Other kinds	Total
	Tons.	Tons.	Tons.
By Government Agency	44,149	9,993	54,142
By purchasers and under trade permits .	466	73,866	74,332
Under free permits ...	712	843	1,555
By leaseholders	2,681	80	2,761
Total in 1884-85 ...	48,008	84,782	132,790
" " 1883-84 ..	40,448	73,409	113,857
Increase in 1884-85 ...	7,560	11,373	18,933

There has been an increase in the outturn of teak as well as of other timber. The outturn of cutch has kept up remarkably.

10. Nevertheless, the gross Revenue has fallen from Rs. 25,09,275 in the previous year to Rs. 16,70,981 in the year under review. The financial results, compared with those of 1883-84, are as follow:—

Circle.	Receipts.	Charges.	Surplus.	Proportion of Surplus to Receipts, in per cent.
	Rs.	Rs.	Rs.	
Pegu	12,71,328	9,04,119	3,67,209	29
Tenasserim	3,99,653	3,08,114	91,539	23
Total in 1884-85 ..	16,70,981	12,12,233	4,58,748	27
„ „ 1883-84 ...	25,09,275	12,17,824	12,91,451	51
Decrease in 1884-85 ...	8,38,294	5,591	8,32,703	24

The decrease was due to the fall in the price of teak, and to an unprecedented slackness in the timber market, which necessitated the withholding of large quantities from public sale, valued, even at present prices, at upwards of 3½ lakhs of rupees.

11. The imports of foreign timber into British Burma, as compared with those of the previous year, were as follow:—

Year.	Pegu Circle.	Tenasserim Circle.
	Logs.	Tons.
1884-85	85,502	158,103
1883-84	47,835	169,400
Increase or decrease in 1884-85 ...	37,667	—11,297

The exports are given as follow:—

Year.	From Rangoon.		From Moulmein.		Total.	
	Tons.	Value.	Tons.	Value.	Tons.	Value.
		Rs.		Rs.		Rs.
1884-85 ..	52,128	48,39,664	95,849	85,79,117	147,977	1,34,18,781
1883-84 ...	68,049	69,06,230	90,359	89,90,041	158,408	1,58,96,271
Increase or decrease in 1884-85 ...	—15,921	—20,66,566	5,490	—4,10,924	—10,431	—24,77,490

The imports show a further very considerable increase in the Pegu Circle, and but a slight falling off in the Tenasserim Circle; whereas, on the other hand, the exports from British Burma have decreased in value by nearly 25 lakhs of rupees.

12. Under these circumstances, the serious falling off in Forest. Revenue was unavoidable and beyond the control of your administration, and His Excellency in Council is pleased to concur with you in considering that the Forest business of the year has, on the whole, been well and carefully conducted, and that the results, though financially unfavourable, have otherwise been satisfactory.

No. 1126 F.

Copy forwarded to the Inspector General of Forests to the Government of India for information, with reference to paragraph 4.

Appendix showing the discrepancies noticed in the Forms appended to the Report of Forest administration in British Burma for 1884-85.

Form No. 50.

(*Plantations.*)

In the "Abstract" for the province, page XXI, all the figures opposite "Total Taungya Plantations" and "Total Cultural Operations" have been incorrectly entered, owing, as regards the Taungya Plantations, to the *double* inclusion of the figures for the Tenasserim Circle (as given in both Forms No. 50, page XX, and No. 50 A, page XXVI, the entries in the latter Form being merely a classified repetition of those in Form No. 50, page XX). The incorrectness of the figures relating to Cultural Operations is due, in the first place, to the *omission* of the figures for the Tenasserim Circle ("South Tenasserim," page XX); and, next, to the adoption of the item Rs. 37,294 as the cost of Cultural Operations in the Pegu Circle on 1st April 1884, whereas the correct sum in this respect, according to the detailed figures on page XXV, is Rs. 37,676.

The following is the correct representation of the "Abstract" in question :—

	On 1st April 1884.		Added during 1884-85.		On 31st March 1885	
	Area.	Cost.	Area.	Cost.	Total area	Total Cost
	Acres.	Rs	Acres.	Rs.	Acres	Rs
Total Regular Plantations ...	3,635	3,26,684	58	2,813	3,693	3,29,497
Do. Taungya ditto ..	6,459	59,901	1,690	19,505	8,149	79,406
Do. Cultural Operations ...	3,321	46,189	...	10,655	3,321	56,844
Grand Total ..	13,415	4,32,774	1,748	32,973	15,163	4,65,747

Further, it is noticed that the cost during 1884-85 is given as Rs 32,973 (Rs. 35,469 originally), while Rs. 32,859 are entered as the total of A. VIII. d. Plantations in Form No. 53, page XXXI. In paragraph 259 of the Forest Department Code (2nd edition), it is said that "the sum total of the column 'Cost' under 'added during the year' [in Form No. 50] will agree with the Expenditure under A. VIII. d. in Form No. 53."

Form No. 62.

(*Account of Timber and other Produce.*)

The figures for both Circles under "Received from Forests and sold locally" *on the Dr. side of this Form* do not agree, as they should (*vide* paragraph 266 of the Forest Department Code, 2nd edition), with the corresponding figures in Form No. 61, nor with those on the Cr. side of this very Form; though the figures on the *Cr.* side agree with those given in Form No. 61.

Form No. 65.

(*Value of Timber and other Produce.*)

The correct "Grand Total" of the "Value on hand at close of the year" is Rs. 29,81,345 and not Rs. 29,81,325, the mistake being due to the entry of Rs. 19,27,924, instead of Rs. 19,27,944, as the total value of the Tenasserim Timber Stock.

Government of India Central Printing Office.—No. 338 H. D.—12-12-85—210.

Lad D N M

REPORT

ON

THE FOREST ADMINISTRATION

OF

BRITISH BURMA

FOR

The year 1884-85.

RANGOON:

PRINTED AT THE GOVERNMENT PRESS

1885.

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TENASSERIM CIRCLE.

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RESOLUTION

ON THE

FOREST ADMINISTRATION

OF

BRITISH BURMA

FOR THE YEAR 1884-85.

Extract from the Proceedings of the Chief Commissioner, British Burma, in the Forest Department,—No. 3M., dated the 25th September 1885.

READ—

Reports of the Conservators on the administration of forests in the Tenasserim and Pegu circles for the year 1884-85.

RESOLUTION.—The report for the Tenasserim circle was submitted punctually, but the report for the Pegu circle was not received in print until the 26th August. Both reports might have been curtailed with advantage. For future years the Chief Commissioner would suggest for the consideration of Conservators a limit of 10 pages for the Tenasserim and 20 pages for the Pegu report.

General results.

2. A net addition of 183 square miles was made to the area of reserved forest as compared with an addition of 317 square miles in 1883-84. The area successfully protected from fire was 176,268 acres against 167,004 acres in the previous year. The plantation of teak in Karen clearings (taungyas) was continued in both circles, and 1,264 acres were added to the area planted in this way, which now amounts to 7,474 acres. The numbers of trees girdled were 18,146 teak and 6,009 of other kinds, against 16,305 teak and 4,808 of other kinds in the previous year. The quantity of teak extracted from the forests was 48,008 tons, or 7,560 tons more than in 1883-84. The gross revenue of the department for the year was Rs. 16,70,981 and the expenditure Rs. 12,12,233 compared with Rs. 25,09,275 and Rs. 12,17,823 in 1883-84. The net revenue of the year was thus Rs. 4,58,748 as against Rs. 12,91,452; this large decrease in revenue is due to the great fall in the price of teak.

RESERVATION OF FORESTS.

3. During the year 184 square miles in the Pegu circle were added to the reserved area, which amounted on the 31st March 1885 to 3,527½ square miles,

exclusive of 414 miles set apart for the use of Karen taungya-cutters, as shown below :—

	Area in square miles.		
	Forest area	Taungya area	Total.
Tenasserim circle	704½	12	716½
Pegu circle	2,823	402	3,225
Total ...	3,527½	414	3,941½

The forest area in the Tenasserim circle was reduced by the exclusion from the Mèkanè reserve of three square miles to meet the grazing requirements of villages in the vicinity. In the Pegu circle, as a result of correct survey, five square miles, were added to the area of the Kôn-Bilin reserve and 24 square miles were deducted from that of Môkka and Kadin-Bilin reserves.

4. No additional areas were proposed for reservation in the Tenasserim circle, and enquiries in the cases of the Upper Tavoy, Upper Yè, and Martaban proposed reserves (aggregate area 800 square miles) had not been completed at the close of the year. In the Pegu circle an area of 125 square miles was proposed for reservation and preliminarily notified.

Forest surveys.

5. The Forest Survey party completed 315 square miles on the 4-inch scale and nearly 37 square miles on the 2-inch scale. The total expenditure was about Rs. 1,05,000, or an average cost of survey per completed mile of Rs. 298. This is a slight improvement on last year, when the corresponding figure was Rs. 319½.

Working plans.

6. By the Working Plans division data for working plans were collected in the following reserves, namely,—

Kôn-Bilin reserve, with an area of 25 square miles;
Kadin Bilin reserve, with an area of 80 square miles;
Mokka reserve, with an area of 38 square miles;
a portion of Minhla reserve, containing an area of 11 square miles.

It is estimated that the cost of the work will have amounted to Rs. 137 a square mile, or Rs. 5 a mile less than in the case of the Thônzè reserve. Teak trees were counted over selected areas aggregating from one-sixth to one-fifth of the whole. The average content of the reserves appears to be about 440 mature teak trees over six feet in girth to the square mile, and about 1,461 second class teak trees of from three to six feet in girth to the square mile. This year's experiments show the age of teak trees six feet in girth to range from 102 to 119 years, while trees three feet in girth were from 50 to 52 years old.

Protection of Reserved Forests.

Prosecutions for forest offences.

7. There was an increase in the number of cases of breaches of rules relating to timber in transit on the Salween, owing to the adoption of additional protective measures. The number of prosecutions in the Pegu circle was about the same as in the previous year. Out of 355 persons brought to trial 311 were convicted.

8. In the Tenasserim circle 73,630 acres out of 81,428 were successfully protected against fire at an expenditure of Rs. 4,905. Although the dry season was unusually protracted, the number of fires (18) was less than in 1883-84, when 24 fires occurred. The chief failure was over 5,820 acres in the Bilakatkyi reserve, protected by the villagers. Fire-protective measures were successful throughout the Pegu circle, with the exception of the Tharrawaddy division. Of 105,458 acres attempted, success was obtained over 102,638 acres. The total expenditure was Rs. 10,459. The following table shows the fire-protective measures of the last three years :—

Protection against fire.

Years.	Area in square miles.		Percentage successfully protected.	Cost per square mile.	Percentage of area under fire-protection to total area of reserves.
	Attempted.	Successfully protected.			
				Rs.	
1882-83	211	180	85	69	7
1883-84	286	261	91	54	9
1884-85	292	275	94	56	8

The increase in the proportion of successful protection is satisfactory, but the total area protected is still very small, and the occurrence of fires in several teak plantations is matter for regret.

Reproduction and Improvement of Forest Growth.

9. An area of 28½ acres was added to the Magayi plantation at a cost of Rs. 344-13-6; the work was carried out by Shans and the plants are reported to have developed satisfactorily. About 30 acres were added to the Kyetpyugan plantation.

10. The taungya area planted with teak in the Tenasserim circle was 263 acres, of which 232 were fully and the remainder only partially stocked with plants at an average cost of Rs. 11-15-4 per acre. The indifferently-stocked area contained nearly 250 plants per acre and the fully-stocked area over 500 plants per acre. The taungya teak plantations in the Tenasserim circle now cover 1,810 acres, of which 1,140 are fully and 670 indifferently stocked with young teak. In the Pegu circle 1,001 acres were added to the area of taungya teak plantations at an average cost of Rs. 12-6-10 per acre. The total area in the circle is now returned as 5,664 acres.

Taungya teak-cultivation.

11. In addition to the purely teak taungya plantations, 342 acres in the Tharrawaddy division were planted with teak and cutch, and in the Prome division 84 acres were so planted. The Chief Commissioner is anxious that cutch plantations should be extended as far as possible; but the cost of such plantations should be less than that of teak taungyas, unless teak is planted with the cutch.

Taungya-cultivation of cutch.

Girdling Operations.

12. In Tenasserim circle 2,700 teak trees, of which 2,054 were in reserved forests, and 3,124 trees of other kinds were girdled during the year.

In the Pegu circle the girdling of 15,700 teak trees was sanctioned. The numbers actually girdled were 15,446 teak trees, of which 1,731 were inside reserves and 2,885 trees of other kinds. The total number of teak trees girdled was 2,146 in excess of Mr. Brandis's forecast of 1880; but the total is far below Mr. Brandis's earlier estimate of 30,000 or 40,000 in Pegu alone, as recorded at

paragraph 26 of the joint report (by Colonels Phayre and Bruce, and Mr. Temple) of 1860. It is probable that the more recent forecast will be further exceeded in future years, when the actual contents of the forests become better known, and action can be taken on the secure basis given by sanctioned working plans.

REVENUE.

13. The gross receipts of the year amounted to Rs. 16,70,981, or Rs. 8,38,294 less than those of the preceding year. The receipts were derived as follows :—

	1883-84.	1884-85.	Increase or decrease.
	Rs.	Rs.	Rs.
From timber and other produce removed from the forests by Government agency	19,67,530	12,56,766	- 7,10,764
From timber and other produce removed from the forests by consumers or purchasers. Timber	2,07,998	1,85,800	- 22,198
Firewood and charcoal	1,226	1,404	+ 178
Bamboos	4,521	4,351	- 170
Grazing and fodder grass	165	225	+ 60
Other minor produce ...	89,109	87,042	- 2,067
Confiscated drift and waif wood	1,66,569	79,483	- 87,086
Duty on foreign timber and other foreign produce...	40,219	30,965	- 9,254
Miscellaneous	31,938	24,945	- 6,993
Total ...	25,09,275	16,70,981	- 8,38,294

The decrease was due to the fall of nearly 45 per cent. in the price of teak. In the Pegu circle auction sales had to be withheld as no purchasers were forthcoming, and at the close of the year there were 26,859 tons of teak in stock at the depôt compared with 14,482 tons in hand last year. The value of the 12,377 additional tons may be roughly estimated at Rs. 3,60,000. The large importation of undersized logs and stem-pieces from the Siamese Thaungyin forests continued and seriously affected the prices realized at the Kado depôt.

The expenditure of the last two years was as follows :—

	1883-84.	1884-85.
	Rs.	Rs.
(A) Conservancy and works	9,39,711	9,39,729
(B) Establishment	2,78,112	2,72,504
Total ...	12,17,823	12,12,233

The net revenue of the year was Rs. 4,58,748 compared with Rs. 12,91,452 in 1883-84. In the Pegu circle the expenditure was Rs. 1,00,167 in excess of the previous year in consequence of remunerative sleeper operations undertaken for the Bengal State Railway. The actual expenditure in the Tenasserim circle was Rs. 1,66,412 less than the amount estimated in the budget, attributable chiefly to short arrivals of timber at the depôts.

14. The following statement shows the quantity of timber, both teak and other kinds, brought out from British forests during the year :—

Timber removed from forests.

	Teak.	Other kinds.	Total.
	Tons.	Tons.	Tons.
By Government agency	44,149	9,993	54,142
By purchasers and under trade permits	466	73,866	74,332
Under free permits	712	843	1,555
By leaseholders	2,681	80	2,761
Total ...	48,008	84,782	132,790
Outturn of 1883-84	40,448	73,409	113,857
Increase in 1884-85	7,560	11,373	18,933
Decrease in 1884-85	...	...	...

15. The total imports of foreign timber amounted to 158,103 tons in the Tenasserim circle and 85,502 logs in the Pegu circle, as compared with 169,400 tons in Tenasserim and 47,835 logs in Pegu in 1883-84. The total quantity of teak exported to all parts of the world was less than in the preceding year. The exports of teak, as returned by the Customs Department, were as follows :—

Imports and exports of teak.

	From Moulmein.		From Rangoon.		Total.		
	Tons.	Value.	Tons.	Value.	Tons.	Value.	Average value per ton.
		Rs.		Rs.		Rs.	Rs.
1883-84 ...	90,359	89,90,041	68,049	69,06,230	158,408	1,58,96,271	100·3
1884-85 ...	95,849	85,79,117	52,128	48,39,664	147,977	1,34,18,781	90·7

Of this quantity 46,428 tons were shipped to Bombay, 35,439 to Calcutta, and 33,260 to the United Kingdom.

Services of Officers.

16. Colonel Seaton was in charge of the Tenasserim circle throughout the year. Mr. Hill was in charge of the Pegu circle until the 31st January, and Mr. Popert from that date until the close of the year.

Services of officers.

The Chief Commissioner considers that the forest operations of the year have been well and carefully conducted. Mr. Popert's paragraph 53 shows that in his circle all officers acted faithfully and satisfactorily up to their sanctioned schemes of work for the year. The serious falling off in revenue, which forms the most unsatisfactory feature in the report, was due mainly to causes over which Forest Officers had no control.

By order of the Chief Commissioner,

E. S. SYMES,

Offg. Secretary

REPORT

ON

FOREST ADMINISTRATION

IN

THE TENASSERIM CIRCLE

For the year 1884-85,

BY

Lieut.-Colonel W. J. SEATON, Conservator of Forests.

CHAPTER I.

AREA AND BOUNDARIES.

1.—Area.

Decrease in area of State reserves.

DURING the year no increase was made in the area of State reserves, but, in accordance with the orders of the Government of India, contained in No. 969F. (Forests), dated the 15th December 1884, an area of three square miles was excluded from the Mèkanè State reserve in the East Salween division to meet the grazing requirements of certain villages in the vicinity: consequent on the above reduction, the total area of sanctioned State reserves is now 716 square miles.

Areas proposed for reservation.

2. No additional areas were proposed for reservation.

The Upper Tavoy proposed reserve (approximate area, 460 square miles) was visited in October by Mr. Duke, Deputy Commissioner of the district, acting as Forest Settlement Officer, in company with Mr. Palmer, the Divisional Officer, and a report submitted to the Commissioner for the orders of the local Government; subsequently the Forest Settlement Officer received instructions to exclude or take up, under the Land Acquisition Act, certain garden lands within the proposed reserve.

During the year no Forest Settlement Officer was appointed for the proposed Upper Yè reserve of an approximate area of 320 square miles.

Areas approved and awaiting sanction.

3. An additional inquiry being deemed necessary in the case of the proposed Martaban State reserve of 20 square miles, the boundaries were again notified in Notification No. 71F., dated the 18th December 1884, in accordance with section 6, Forest Act, 1881, and the Deputy Commissioner of the district was at the same time appointed Forest Settlement Officer.

2.—Boundaries.

Demarcation of boundaries.

4. No final demarcation of boundaries was undertaken during the year, but a small portion of the west boundary of the Kyaukket reserve, East Salween division, was rectified by the shifting of the boundary boards from one path to another adjacent to it which formed the sanctioned boundary line.

Inspection of reserves and renewal of boundary marks.

5. The boundaries of the Gawlè, Ônkaraing, Balèdo, South Myewadi, East Mèpalè, and West Mèpalè reserves were in part inspected by the East Salween Divisional Officer and those of the remaining reserves by the forest ranger.

A large number of the boards of the old small pattern in the Mèpalè reserves was again found to have split and arrangements were made to replace them with new boards of the pattern now in use.

In the South Tenasserim division the boundaries of the Mintha reserve were in part inspected by the Divisional Officer, and in the Ataran division portions of the boundaries of all the reserves were inspected by Mr. Barnard, the Subdivisional Officer

In the West Salween division the boundaries of the several Bilin, Dôndami, and Yunzalin reserves were in part inspected by the Conservator and those of the Mèthalauk reserves by the forest ranger.

CHAPTER II.

Surveys, Working Plans, and Annual Plans of Operations.

Examination and survey of the forests on the Little Tenasserim river.

6. The forests on the Little Tenasserim river, South Tenasserim division, were examined by Mr. Palmer, and a tract of pyingado-producing forest, about 25 square miles in area, was selected as suitable for reservation, and surveyed together with a large area extending towards the sources of the river, for a portion of which likewise proposals for reservation are about to be submitted by the Divisional Officer.

Examination of padauk forests in the Haungtharaw valley, East Salween division.

7. An examination was made by the Conservator of the padauk-producing forests on the Tinyakaè, Yat, and Nônthaman streams west of the Haungtharaw river.

The padauk tracts on the Tinyakaè stream are almost wholly to the west of the stream, on level and undulating ground, and were found to extend over an area of about six square miles.

The trees are of magnificent growth, the stems being tall, straight, and cylindrical, and having an average girth, in the case of I class trees, of about 8 feet.

Reproduction, however, is in a most unsatisfactory state (owing doubtless to the jungle fires), linear valuation surveys over an area of 61·8 acres showing an average of 91 I class, 34 II class, and four III class trees on 100 acres.

In the Yatchaung and Nônthaman tracts trees of the III class were found to be more numerous, the forests on the former stream being moister and evidently less subject to injury by fire.

Linear valuation surveys over 36·5 acres gave an average per 100 acres of 91 I class, 54 II class, and 72 III class in these tracts, which are estimated as extending over an area of about 10 square miles, of which, as in the case of the Tinyakaè forest area, about one-half only can be regarded as padauk-producing forest. The forest bore traces of serious injury from taungya-cultivation in places on the high ground, and as soon as the necessary sketch-maps are prepared, proposals will be submitted for their reservation, it being very desirable to protect and maintain as reserves considerable areas abounding in this valuable timber in view of the steady demand prevailing for it both for shipment and local purposes.

Survey of the teak tracts at the sources of the Kyunmagu, Misan, Kyaukpya, and Nônkamaing forests.

8. Towards the close of the year Forest Ranger Shwe Ka was employed in executing a survey, with prismatic compass and chain, of the teak tracts at the sources of the Kyunmagu, Misan, Kyaukpya, and Nônkamaing forests in the Salween division. They occupy, it may be said, the knolls and elevated ground in the form of narrow belts from the sources of the Wônparauk and Kyunmagu chaungs, feeders of the Gyo chaung on the north, to Nônkamaing near the Padaing (limestone) hill to the south, and thence eastward in small patches as far as the village of Nônywa, a total distance altogether of 14 miles.

Although, in common with most teak tracts in the lower part of the Salween valley, the growth of the teak cannot compare with that of the produce of the hill forests, yet the teak in these tracts is of fair marketable quality as regards length and soundness. Their chief value lies, however, in their proximity to Moulmein, from which they are only distant 45 to 50 miles.

Associated with teak are pyingado, pyinma, and other species, for which the demand for domestic purposes in the larger villages is on the increase.

Hence the demarcation of the tracts under reference, although not securing the protection of a very large area of teak-producing forest, will nevertheless provide for the maintenance of a considerable supply of valuable timber of other kinds and so meet the future needs of the surrounding population.

Working plans.

9. No survey work in connection with the framing of working plans was undertaken during the year.

The first period of five years of the rough working plan of the teak forests in the East Salween and West Salween divisions having terminated in 1883-84, Block I in the former and Block IV in the latter were, with the sanction of the local Government, thrown open for girdling operations during the year under review, as the first year of the second period.

During the first period, from 1879-80 to 1883-84, the girdling reports show a total of 7,705 teak trees as having been killed, namely, 1,706 within and 5,999 outside the reserves in the following order :—

	Within reserves.	Outside reserves.	Total of trees girdled.
East Salween division—			
Block V ...	... 1,706 ...	4,006 ...	... 5,712
West Salween division—			
Block I ...	... ...	1,993 ...	... 1,993
		Total	... 7,705

The girdling work as regards selection of trees was, with the one exception recorded in the Forest Administration Report for 1882-83, paragraph 42, conducted in accordance with the Inspector-General's proposals noted in the "Suggestions regarding forest administration in British Burma," dated the 20th January 1881, the trees within the reserves being selected with due regard to reproduction and sufficiency of seed-shedding trees, while outside the reserves all marketable I class trees were selected wherever it was profitable to remove them.

The total number of trees girdled within the five years, namely, 7,705, give an average of 1,541 a year, or 541 in excess of the annual average suggested by the Inspector-General, but the latter was only a temporary average proposed pending the completion of demarcation in the Thaungyin forests. The adoption of the plan of dividing the forests into five blocks to be thrown open in succession for girdling for a period of five years was, in accordance with previous suggestions of the Inspector-General, communicated while on tour through the Tenasserim forests in 1880, and subsequently approved by the local Government in Officiating Secretary to the Chief Commissioner's letter No. 7570-5—24, dated the 29th October 1880.

CHAPTER III.

Protection and Improvement.

General Remarks.

Forest legislation.

10. During the year, in accordance with the representations and request of the leading timber importers, Rule 36, section 4, of the Forest Rules was revised in order to check the practice of bank salving above Mèzeik, and restrict such salving between Mèzeik and Kamawlè on the Salween river to the periods during which salving by means of kyodans or booms is rendered impracticable by the rising of the river and velocity of the current.

Formerly prohibition against salving above Mèzeik was enforced under certain local rules in accordance with the long-established custom of the trade, the police stationed at Mèzeik during the rains having instructions to arrest parties proceeding upward to salve; but the rules in question were found not to have the force of law, and resulted in numerous bank salvors establishing themselves among the rocks and back eddies above Mèzeik, and intercepting and handling timber in places where no control or supervision could be exercised over their movements.

The practice also commenced of intercepting timber above the booms at Kamawlè much to the annoyance of the timber importers.

The rule, however, as revised in Revenue Department No. 33 (Forests), dated the 29th July 1884, and noted in Appendix AI, effectually deals with the evils complained of, the Forest Department having power at the same time to grant, in special cases, permission to timber importers in the dry season to push off timber which happens to be stranded on the rocks and banks.

It was also found necessary, in accordance with the representations of the leading timber importers on the Salween, to amend Rule 39 in the explanation of the word log and in the list of salving stations and rates.

The explanation in question as to what constituted a log was somewhat indefinite and led to disputes between owners and bank salvors in respect to the actual rate to be paid on the different classes of undersized timber, of which such large quantities have of late been arriving from the foreign Thaungyin forests.

The amendment now made in Revenue Notification No. 66, dated the 27th November 1884, and noted in Appendix AI, removes all difficulty, and by providing one uniform salving rate for all the upper stations of Re. 1 per full-size log will tend to reconcile the bank salvors to the change.

The amendment in the list of salving stations also provided for the exclusion of all reference to Kado as a station, to the vicinity of which, under the plea of acting under Rule 35, bank salvors could remove timber, while their real object would be to drift the logs at night to the smaller saw-mills and saw-pits at Moulmein.

During the year the advisability of issuing trade licenses for reserved trees, subject to a definite restriction as to the minimum girth of trees to be felled, was brought to the notice of the local Government, and the necessary alteration was effected in the forms of licenses Nos. IV, IV(*a*), V, and V(*a*) as notified in Revenue Department No. 25 (Forests), dated the 3rd July 1884.

In addition to the abovementioned amendments, more or less specially affecting the enforcement of the rules in this circle, it was found necessary to revise, in Notification No. 21, dated the 12th March 1885, Rule 8, with a view to restricting the passing of only such timber at the revenue stations as firewood as had been converted into the same within the forests or before arrival at the revenue stations.

During the year the penalty noted in Rule 10 as attached to the infringements of Rules 5 to 8 was increased from one month to six months' imprisonment.

1.—Establishments.

Permanent establishment.

11. No alterations were made during the year in the strength of the permanent establishment.

Kado Division.—In the Kado division Forest Ranger Mr. B. Legeois was dismissed the service on the 6th January on some grave charges connected with the passing of drift timbér at the Battery Point timber depôt, and was succeeded by Mr. Benjamin, who was promoted from the temporary establishment.

Mr. Agaety, forest ranger, also of the Kado division and employed on the Salween river, having applied for pension and found to be incapacitated for further active service, was relieved of his duties and a substitute temporarily appointed in his stead until the services of Forest Ranger Po Tu, of the West Salween division, could be made available for the work on the Salween river.

West Salween division.

In the West Salween division both the Karen forest guards of the Sinzwè and Wamu reserves resigned on the 1st March,—one on account of ill-health, and the other on the ground of having incurred the ill-will of the Shans and Karens resident near the reserve, who had been reported for cattle-trespass.

Pa Thaw, a leading Karen within the Sinzwè reserve, and one Chin O were appointed in their stead. Up to the close of the year it had not been found possible to obtain the services of a competent Karen as forest guard for the Mèthalauk and Pachaung reserves in the Upper Salween forests.

Ataran division.

Of the two vacancies existing in the subordinate forest establishment of the Ataran division one was filled up by the nomination of Ngè Pu, a Karen of some education, to the charge

of the Pakabo and Ma-u reserves as forester of the 6th grade, while in the case of the other vacancy the nomination of a suitable candidate was under consideration at the close of the year.

Office Establishment.—The vacancies in the office establishment of the South Tenasserim and West Salween divisions were both filled up by the appointment of Mr. J. Johnson as clerk and accountant of the Tavoy forest office on the 25th April, and of Maung Pyu Dun as clerk and Burmese writer of the Papun forest office on the 10th March.

Temporary establishment.

12. Consequent on the representations of the leading timber importers on the Salween river, the sanction of the local Government was obtained for the entertainment of a large additional temporary establishment, at a cost of Rs. 4,848, from the 1st August 1885, to insure the better protection of timber adrift and in transit on the river, and check the practice of salving above Mèzeik and passing stolen timber into Moulmein.

The establishment in question, sanctioned in Secretary to the Chief Commissioner's letters No. 601-17, dated the 29th May 1884, and No. 166-14D., dated the 5th September 1884, and detailed below, provided for a strong guard at the Mèzeik (uppermost) salving station and two guard boats, one at the Mibôn station and another at the mouth of the Ôntabin passage above Kado, to prevent the removal of timber thence direct to Moulmein.

It also provided for patrol establishments for the river in the immediate vicinity of Moulmein, from Daingwunkwin to Natmaw, eight miles below Moulmein, and the maintenance of a guard-house in the Mupun quarter of the town, as well as a small increase in the Kado office establishment to insure more careful scrutiny of timber on arrival at the station and expedite the issue of certificates of registration known as "teinsas."

Provision was further made for a boat establishment for the use of the Subdivisional Officer at Shwegôn charged with the control and supervision of the several establishments on the Salween from the mouth of the Thaungyin river down to the mouth of the Dôndami river, below which control lies with the Deputy Conservator at Moulmein.

The total additional temporary establishment, referred to in detail above, comprised 16 foresters on salaries varying from Rs. 15 to Rs. 40 per mensem, 16 forest guards, namely, eight on Rs. 14 and eight on Rs. 12 per mensem, one tindal, and three lascars (all for river control work), and one clerk, 2nd grade, and one peon for the Shwegôn subdivisional office, as well as two clerks, 4th and 5th grades, and four peons for the Kado office.

Sanction was also obtained for the entertainment of the ordinary temporary establishment throughout the year at a cost of Rs. 8,196, which, with the cost of the additional establishment on the Salween and of an additional forest rangership assigned to forest apprentice Shwe Ka, makes a total of Rs. 13,044 as sanctioned for the year under review.

Forest apprentices.

13. Forest apprentice Shwe Ka returned from the Dehra Dun forest school on the 14th January 1885 and, pending a vacancy in the grade of forest rangers on the permanent establishment, was appointed forest ranger, 5th grade, or a grade higher than that of the forest apprentices who proceeded to the Pegu circle, he having succeeded in obtaining a ranger's certificate.

2.—General Protection and Breaches of the Forest Law.

General remarks.

14. As a result of the additional protective measures adopted on the Salween, the year under review exhibits an increase in the number of cases dealt with of breaches of the forest rules relating to timber in transit on the Salween. The increase in question would doubtless have been greater had the additional protective establishments been entertained from an earlier date and employed throughout the rains.

Considerable difficulty was experienced in obtaining suitable men equal to the rough duties at the Mèzeik station, and delay was also due to the time

required for procuring and fitting out the requisite boats, the result being that the various establishments were only made up to their full strength and in good working order by the 1st October 1884.

Of breaches of forest rules on the other hand, within or connected with State reserves, only one case occurred during the past year, while breaches of rules in unreserved forests exhibit only a slight diminution, although in the Tavoy district, as reported by the Divisional Officer, the new rule of awarding a portion of the fines to informers has considerably stimulated the detection of offences.

Breaches of forest rules within reserves.

15. Only one case of breach of rules was reported during the year as connected with the State reserves.

In the East Salween division the Karens of Pobasè village late in the dry season committed a breach of Rule 4, section (*a*), in neglecting to give notice of intention to fire their taungyas within two miles of the boundary of the West Mèpalè fire-traced reserve, but it being their first offence no action has yet been taken against them and the case will, doubtless, be compounded under section 66 of the Forest Act.

The case which was pending at the close of the previous year against the Bombay Burma Trading Corporation, Limited, lease-holders of Ataran forest No. 50, for the girdling of 89 teak trees within the Mègwa reserve, was dismissed by the local Government with a caution, the leaseholders promising to exercise more control in future over their employés and affirming that the present case was quite unintentional on their part.

Breaches of forest rules in unreserved forests.

16. In unreserved forests 83 cases of breaches of forest rules were reported.

Of these the larger proportion, namely 16, occurred within the South Tenasserim division, all being of unauthorized felling or appropriation of timber and minor forest produce. In seven cases, in which 11 persons were implicated, all were convicted and punished in one or other of the Courts of the several Tavoy District Magistrates, but in eight cases no convictions were obtained for want of sufficient evidence.

In the Mergui Magistrate's Court one case only was dealt with and resulted in conviction.

In the East Salween division six cases of breaches of forest rules were detected, all but one relating to unauthorized felling of trees of the reserved kinds.

Of these, one case was prosecuted in the local Myoôk's Court and disposed of by a fine of Rs. 3, three cases were compounded for sums of Rs. 40 to Rs. 50, and in two others the parties were dismissed with a caution.

In the West Salween division one case was referred to the District Magistrate, in which a petty contractor working in the Upper Salween forests above Dagwinzeik stockade, was charged with theft of teak timber, but the evidence being deemed insufficient it was dismissed.

In the Salween division the Divisional Officer, Mr. Weston, acting as Magistrate of the III class, disposed of five cases of breaches of Rules 5 and 8, which resulted in five defendants being convicted and fined in all Rs. 105 and five defendants being discharged.

In the Shwegyin subdivision only one case of breach of Rule 5 was dealt with and resulted in a fine of Rs. 5.

Breaches of forest rules in leased forests.

17. Towards the close of the year the Ataran forest ranger completed the examination and measurement of 152 trees girdled by the employés of Mr. J. W. Darwood, leaseholder of Ataran forest No. 53, near the upper part of the Zami river.

As the measurement shows 38 trees to be below the minimum standard girth noted in the lease, namely, 7 feet 6 inches measured at 6 feet from the ground, and 11 trees as beyond the limits of forest No. 53, the leaseholders' employés have committed a breach of the forest rules as well as of the conditions of the lease, and the matter is about to be reported to the local Government.

3.—*Forest Fires.*

Forest fires within the unprotected reserved forests.

18. As is the case in the unreserved forests, the annual fires penetrate into all the unprotected reserved forests which comprise large areas of deciduous forest.

The extent to which they spread in each reserve is, in ordinary seasons, regulated by—

(i) the area of leaf-shedding forest;
(ii) the position and extent of the evergreen and moist forests;
(iii) the number and size of perennial streams;
(iv) the existence of high-roads or pathways in constant use in the dry season;
(v) early showers.

Hence, as the result of so many factors operating, it will be evident that no fixed area can be counted upon as yearly escaping the fires, except in the case of reserves embracing a large extent of compact evergreen forest.

The reserved forests may, therefore, be classified in respect to the spread of the annual fires as—

(i) reserves containing large and compact areas of evergreen forest which may be annually counted upon as resisting the fires;
(ii) reserves in which the area which escapes the jungle fires fluctuates yearly according to circumstances.

Of the reserves in this circle only two, the Kahilu, West Salween division, and Mintha in the South Tenasserim division, fall into the first category, and in them the following areas are estimated to have escaped the fires during the past dry season :—

Season of 1885.

	Sq. miles.
Kahilu reserve (unprotected portion of reserve)	13
Mintha reserve, out of a total area of 100 square miles	20
Total ...	33

In the case of the other reserves, owing to the late receipt of the orders on the subject, it was not possible to collect accurate information as to the extent to which portions escaped the fires, each reserve requiring to be examined by a competent subordinate.

Next season early arrangements will ensure correct estimates being made.

Fire-protective measures.

19. The fire-protective measures of the year exhibit a small increase in the area attempted to be protected, consequent on the protection of the eastern portion of the Tagèlaung reserve in the West Salween division being undertaken by the villagers residing at Yotha and Pyinmabinzeik on the boundary of the reserve.

The area attempted was 81,428 acres, or 2,976 acres in excess of the area attempted during the previous year, equivalent to a small increase of between 3 and 4 per cent.

Failures in fire-protection.

20. Although the dry season was again unusually protracted, no early showers having fallen in April, the numbers of fires which occurred were less than during the previous year, namely, 18 as compared with 24, and the area over which protection failed was only 9 per cent. of the total area attempted to be protected, namely, 7,798 acres out of a total of 81,428 acres.

The chief failure was over 5,820 acres in the Bilakatkyi reserve protected by the villagers, who receive yearly permission to cultivate in certain kaing-grass areas within the reserve.

The very dry character of the Bilakatkyi forests, with its undergrowth of grass, renders protection very difficult during a long period of drought, the system adopted by the villagers of sweeping pathways clear of débris, burning the latter, and meeting fires by counter-fires being likewise incomplete without the assistance of a few well-made permanent fire-paths, which now appear to be absolutely necessary to ensure a certain measure of success.

The next serious failures were in the Sinzwè and Tagèlaung reserves, likewise in the West Salween division, to the extent respectively of 740 and 600 acres.

In the former reserve three fires were of small extent, one of which was caused by a traveller passing along the Papun high-road at night, while the other two, which swept through two acres of the 1879 plantation and 10 acres of 1881 to 1883 plantations, were due to the wind carrying sparks beyond the fire-traces of the new season's taungyas when in course of being fired.

The fourth and really serious fire in the Sinzwè reserve likewise originated within the reserve and was, doubtless, caused by people travelling through along the Myintabye fire-traced path. It commenced, on the night of the 28th April, on the Bawmawlaw chaung in the north-west angle of the reserve, and was only suppressed by the Kamu cooly establishment, aided by the Karens, on the morning of the 1st May, after it had extended over an area estimated at 720 acres in the direction of the Kwethè chaung.

The fire in the Tagèlaung reserve was due to the firing by the villagers of the large kaing-grass tracts on the west side of the reserve, care not being taken to extinguish the fire in all the logs left smouldering after the firing operations.

The fire broke out again at night and was not suppressed till it had spread over 600 acres in the south-east portion of the reserve.

The above fires, together with one which spread over 250 acres in the West Mèpalè reserve, East Salween division, complete the list of more serious failures during the year. In the last-named case blame is attributed to the forest ranger in allowing 10 of the contractor's felling coolies to enter the reserve in search of timber and camp between the Mowamè and Tikotaw chaungs on the western boundary, there being every reason to believe the fire originated in that quarter through the carelessness of some of the coolies.

Area successfully protected.

21. In all an area of 73,630 acres was successfully protected, or 90·4 per cent. of the total area attempted.

Complete success as heretofore attended the measures undertaken wholly by the Karen forester for the protection of the Bilin, Mèwaing, and Minnaunwè reserves, West Salween division, aggregating 18 square miles.

In the Kahilu, Ônkangyi, and Wama reserves, likewise in the West Salween division, protective measures were also successful, no fires occurring in the Kahilu reserve, while in the two latter only three small fires occurred aggregating 85 acres in the one case and 20 in the other.

The most successful results comparatively were obtained in the West Mèpalè reserve, East Salween division, estimated at 25,600 acres in extent, for the protection of which a large cooly establishment had to be maintained under the forest ranger throughout the greater part of the dry season.

Notwithstanding three fires originating from the burning of the fire-traces and one from some taungyas outside the west boundary, as well as one already noted in the preceding paragraph as caused by timber coolies, the total area successfully protected is estimated at 25,082 acres.

The work in the Ataran division was also very successful, only 15 acres in the Kyunchaung reserve being burnt out of 10,880 taken in hand, while no fires occurred in the other protected areas.

Expenditure in fire-tracing.

22. The total expenditure incurred in the successful protection of 73,630 acres during the past dry season was Rs. 4,905, or one anna one pie per acre.

The increase of Rs. 1,799 over and above the expenditure in the previous year was due to a larger cooly establishment being engaged for the protection of the West Mèpale reserve, East Salween division, and additional Kamu coolies being employed in the West Salween division to ensure a closer watch in the Sinzwè and Kahilu reserves on account of the new high-road to Papun, which passes through them.

In the case of the West Mèpalè reserve, however, the expenditure will decrease as the present fire-traces are gradually converted into permanent fire-paths by the girdling and felling of all trees standing on or shedding leaves on them.

4.—*Grazing and Fencing.*

Grazing within reserves.

23. The reserves in this circle when sanctioned were in no single case burdened with grazing rights, the requirements of the surrounding population being more than provided for in the unreserved forests, or being specially met by excluding in most cases particular areas deemed necessary for the purpose.

Unforeseen circumstances will however sometimes arise, necessitating the conceding of additional privileges, such as grazing, or it may so happen that at the time of reservation, notwithstanding the procedure adopted and every effort made to ascertain the exact requirements of the population, cases will subsequently come to light of individuals failing to claim certain privileges from one cause or another, and so necessitating a revision of the statement of privileges.

A case in point is that of the Mèkanè reserve, East Salween division, in which a claim to the privilege of grazing elephants was put forward by certain villagers some years subsequent to reservation.

The individuals chiefly interested are the leading Karens, who are engaged in timber operations throughout the rainy season in the foreign Thaungyin and other forests, but keep most of their elephants within British territory during the dry season.

In accordance with the local custom these animals are kept during the latter part of the hot season in the moist forests at the sources of the streams in the vicinity, among which happen to be some streams within the east boundary of the Mèkanè reserve.

The matter, on reference to the local Government, resulted in orders being passed in Assistant Secretary to the Chief Commissioner's letter No. 630-18D., dated the 28th November 1884, to the effect that permission to exercise such rights must be left to the discretion of the Civil Officer and Conservator, and that no revised statement of privileges could be published.

From the report of the Divisional Officer it appears that the privilege in question was exercised to the following extent during the past dry season, but no examination of the forests has yet been made to ascertain what limit must be placed on the number of elephants which can be admitted at one and the same time:—

	Elephants.
By Myewadi	23
„ Payamaw	9
„ Papaw	7
„ Nandiya	5
Total ...	44

With the exhaustion of the foreign Thaungyin teak forests, and gradual suspension in them of timber operations, it may be confidently expected the number of timber elephants, for which grazing has to be found in the Mèkanè reserve, will very considerably decrease.

The privilege thus temporarily granted is restricted to the vicinity of the head-waters of certain streams abounding in moist, shady forest destitute of teak; and as long as the owners are careful to keep their elephants within the same, no great damage need be anticipated, although such animals are generally destructive to seedlings and young trees of all kinds in either trampling on them or breaking them from mere habit.

5.—*Natural Reproduction.*

No direct measures undertaken to promote natural reproduction.

24. It has not been found possible to undertake any direct measures towards stimulating natural reproduction.

Indirectly, however, much has doubtless been accomplished by the exclusion of fire, in whole or part, from many of the State reserves, especially those in which the undergrowth and more or less open character of the forest are favourable to germination, and the springing up also of seedlings which have been struggling for years with jungle fires.

6.—*Artificial Reproduction.*

Teak taungya-cultivation.

25. The area cultivated with teak in taungyas during the year exhibits an increase of 60 per cent. on that of the previous year.

The results obtained were as follows:—

	Well stocked. Acres.	Indifferently stocked. Acres.
West Salween division	182	4
East Salween division	82	10
Ataran division	18	17
Total ...	282	31

making a total of 263 acres, of which only 12 per cent. were indifferently stocked, the countings on the latter falling below 250 plants per acre, while on the remaining areas the average was found to be a little over 500 plants per acre.

Again the most satisfactory results were obtained, as to number and size of plants, in the Mewaing reserve, West Salween division, where an average of 700 plants per acre were obtained at 12 feet × 4½ feet distances, the Karen forester in charge as heretofore taking exceptional interest in the work, and personally setting an example to the Karens by the attention and care bestowed on his own taungya-clearing.

Good results were also obtained in the Ônkangyi reserve, West Salween division, although the Karen cultivators were nearly all new to the work of planting teak, the average obtained being 561 plants per acre; but success was in a measure due to closer sowing, namely, at pegs 3 feet × 10 feet apart, which it is well to adopt until the cultivators gain more experience.

For similar reasons the sowings in the West Mèpalè reserve, East Salween division, which gave about 500 plants per acre, were made at 9 feet × 3 feet apart, the Karens being, for the most part, inexperienced and disposed also to become discouraged by failure.

In the Dali reserve, Ataran division, the larger proportion of the taungya-clearings gave very indifferent results, which must be largely attributed to want of care in sowing and weeding on the part of the cultivators, and the want of influence and tact in dealing with them on the part of the forester in charge.

The surface soil in many of the taungyas, however, was found to be somewhat stiff and hard, and this may partly explain the results obtained.

Total area cultivated with teak up to date.

26. The total area planted with teak up to date, as shown in Form 50 attached to this report, is as follows:—

		Acres.
Regular teak plantations from 1856 not intended to be increased		23
Taungya teak plantation—		
(a) Well stocked	1,140	1,810
(b) Indifferently stocked	670	
Total ...		1,833

Expenditure on planting, &c., during the year.

27. On the area cultivated during the year, namely, 263 acres, a total sum of Rs. 1,588 was expended, inclusive of cost and transport of teak seed and taxes of cultivators.

Including charges against former year's plantations, weeding, &c., the total expenditure amounted to Rs. 3,145.

7.—*Cutting of Creepers, Weeding, &c.*

Weeding.

28. In the West Salween division weeding was carried out in 274 acres of teak plantation of 1881, 1882, and 1883, and light clearing work in 39 acres of the earlier plantations, or over a total area of 313 acres, at a cost of Rs. 826-10-9, or Rs. 2-10-3 per acre.

In the East Salween division the work was conducted over 43 acres of the previous year's plantations at a cost of Rs. 99, or Rs. 2-4-10 per acre, and in the Ataran division over 64 acres of similar plantations at a cost of Rs. 168, or Rs. 2-10-0 per acre.

The total amount thus expended on weeding was Rs. 1,093-10-9, or an average of Rs. 2-9-8 per acre.

Creeper-cutting.

29. No direct creeper-cutting work was undertaken except in the course of girdling work and jointly with weeding operations in the older plantations as was found necessary.

8.—Experiments with Exotic and other trees.

Cultivation of kyibin (*Barringtonia racemosa*) (Sinzwè reserve).

30. The area planted with kyibin in the Sinzwè reserve was once weeded in the rains, but the plants appear to have made slow progress, and more frequent weeding is doubtless necessary.

Cultivation of Para India-rubber (*Hevea Brasiliensis*) at Mergui.

31. In the Mergui plantation, at the close of the year, there were 53 large *Hevea* trees and 38 fine, healthy seedlings, two to three feet in height, which had been successfully raised from 66 seeds collected from some of the larger trees.

The seed yielded in all 51 seedlings, but these, from various causes, decreased to 38, although the greatest care and attention were bestowed upon them.

The first 24 seeds were sown in August and yielded 15 seedlings, and during the following month the experiment was made of sowing some seed partially cracked and some completely husked, which served to show that seed thus treated required respectively ten and six days in which to germinate, whereas in the case of entire seeds the time occupied was eight days.

As an experiment some of the seedlings have been put out into the plantation, but they do not grow as well as those under shade, which are to be set out in the rains. Two of the largest *Hevea* trees of 1877 in the plantation, which flowered lately, are reported to have attained the following sizes :—

	Height.		Girth.
	Ft.	In.	Ft.
1	36	10	2
2	32	5	2

A measurement of the seven *Hevea* trees planted out in the compound of the Mergui forest office in 1877 gave the following results :—

No.	Height.		Girth.	
	Ft.	In.	Ft.	In.
1	36	0	1	10½
2	27	5	0	9½
3	31	6	1	9
4	32	0	1	4½
5	10	3	0	6½
6	11	3	0	9½
7	11	9	0	11½

Of these the three largest ones only have flowered.

Cultivation of *Castilloa elastica* at Mergui.

32. The two old *Castilloa* trees planted in 1879, and rather weakly at first, do not appear to be in a very vigorous or healthy condition, but the four younger ones, the survivors of the 12 cuttings received last year from Ceylon, are flourishing. Two of them are now reported to be respectively 6 feet 5½ inches and 5 feet 3 inches in height, and 7 inches and 4 inches in girth.

Some cuttings were obtained from these plants and, as one succeeded, the experiment is being continued.

In the opinion of the Divisional Officer the *Castilloa elastica* promises to be the most suitable of the India-rubber trees for introduction into Burma.

Cultivation of Ceara (*Manihot glaziovii*) at Mergui.

33. In accordance with the orders of the local Government, the cultivation of ceara has been suspended consequent on the large number yearly succumbing to white-ants.

There are yet many trees left in the plantation, but their total disappearance is apparently but a question of time.

Cultivation of *Ficus macrophylla*.

34 The four old *Ficus macrophylla* trees are alive, but only two seem to be in a thoroughly healthy condition. Apparently the tree has a habit of developing numerous stems, which consequently preclude any satisfactory measurements being taken of girth. The height of the largest is 14 feet.

The 13 cuttings referred to in the previous year's report are in a very flourishing state, and of 15 additional cuttings put out during the year only four failed.

Experimental cultivation of the Kyetpaung creeper (*Parameria glandulifera*).

35. The Kyetpaung plants have been increased from 161 to 227, which are growing well, though on the whole so slowly that Mr. Palmer, the Divisional Officer, is of opinion that there is no prospect of the cultivation ever proving profitable, particularly in view of the very small yield to be expected from the creeper when fully grown.

The plants have throughout been kept under shade, but have not been watered.

Cultivation of other species in the Mergui plantation.

36. The growth of the Malainben trees (*Broussonetia papyrifera*) is not such as to give much promise of success in the climate and at the low elevation of Mergui.

The casualties have been few, but the growth has up to the present been very slow; the two largest trees measure respectively 15½ and 12½ feet in height, and 5½ and 6 inches in girth.

The 15 young Akyaw trees (*Aquillaria agallochum*) are doing well, but likewise grow slowly. To these 50 seedlings were added during the year, but subsequently four died.

The *Pithecolobium saman* or rain tree experiment has failed altogether, but the plants of *Musa textilis* are on the whole doing well, there being 73 good plants on hand at the close of the year, of which one fruited, but without the fruit coming to maturity. No less than 19 of the plants are reported as destroyed by deer.

The mahogany experiment continues to hold out little prospect of success, there being now only 10 unhealthy young plants in the plantation.

In addition, experiments are being made with *Divi-divi*, of which 1,475 plants are on hand, but only in shrub form. Those on the lower ground are the healthier of the plants, but the climate is apparently unsuitable for them. To afford shade and enhance the value of the plantation, the blanks in places have been planted up with seedlings of mayan, mangosteen garcinia, betel-palm, cocoanut, durian, and jack.

Experimental cultivation on the area transferred from the charge of the Civil Department.

37. In accordance with the sanction conveyed in Officiating Secretary to the Chief Commissioner's letter No. 643-43, dated 31st October, the area assigned to the Civil Officer for experimental cultivation was amalgamated with the plantation area under Forest Department control.

The area in question is reported to contain the following stock of plants:—

Liberian—	Trees	
(1) Coffee trees, bearing	1,350	4,402
(2) Ditto, young trees	708	
(3) Ditto, seedlings	2,344	
Arabian coffee—		
Trees, bearing	920	2,188
Seedlings	1,268	
Cocoa trees	22	
Vanilla creepers	251	
Nutmeg trees	120	

The growth of the Liberian coffee is very fine, the bearing trees being 8 to 12 feet high although only 3½ years of age.

It has not been possible to ascertain the quantity of fruit collected during the year, but the crop was undoubtedly a heavy one, and of what remained at the time of transfer, 1½ cwt. was given to Mr. Watson, the planter who has undertaken coffee cultivation near Tavoy.

The trees have again flowered freely and a large crop is expected next season.

The Arabian coffee trees do not seem to thrive to the same extent as the Liberian, but being only 2¼ years old and very little fruit having been yet produced, no definite opinion apparently can be formed of the ultimate result of the experiments until two years more have elapsed.

Several of the cocoa trees have flowered, and it is hoped seed-pods will be forthcoming for propagation purposes, the trees being carefully fenced in to protect them from monkeys, which are very troublesome at times.

The nutmeg trees are all growing well and leave no doubt as to the ultimate successful introduction of this species; but considerable difficulty is experienced in propagating it, and experiments have to be continued to ascertain the particular treatment which is necessary to insure a larger percentage of the seeds germinating.

Two of the vanilla creepers have flowered and as many as 30 flowers were formed, but all attempts at fecundation in accordance with Mr. Connor's method failed, and point to the necessity of forming a "vanillerie" in which the creepers can be placed close to one another.

Up to the date of closing the report no information had been received regarding the amount expended out of the provincial grant on the area transferred from the charge of the Civil Department.

Total expenditure at the Mergui plantation.

38. The total expenditure incurred during the year and charged in the accounts of the Department was Rs. 696.

Experimental cultivation of mahogany at Amherst and Moulmein.

39. A further decrease has been reported in the number of the mahogany trees planted out about 1½ mile to the south of Amherst. Out of the 100 small plants originally set out in 1879 there were only 63 surviving in 1883 and 57 in 1884, and these latter have decreased to 50 on account of the attacks of the borer referred to in previous reports. Many of the young trees have, however, grown considerably, and it remains to be seen whether they will not ere long be beyond all risk of injury by such insects.

The 10 largest trees were found to measure at the close of the year—

	Height. Ft.	Height. In.	Girth. In.
1	14	0	9
2	12	8	9
3	11	0	9
4	9	9	8
5	10	11	7
6	10	5	7
7	10	5	7
8	10	3	7
9	9	1	7
10	8	8	7

the girth being taken at 6 inches from the ground.

The plantation has continued in charge of the forester stationed at Amherst and no expenditure was incurred.

No casualties occurred among the 14 mahogany trees planted out in the Moulmein forest office compound in 1879 and subsequently, and with the exception of three, the crowns of which have been broken off by high winds, the whole may be said to be in a flourishing condition.

The practice of occasionally watering them in the dry months has been discontinued.

The five largest trees now measure from 11 feet to 19¾ feet in height, and 4 inches to 14 inches in circumference at two feet from the ground.

9.—Communications and Buildings.

Buildings, guard-houses, &c., constructed.

40. In the Salween division a small platform was constructed at the Battery Point timber depôt on which to erect the crane purchased during the previous year for the work of loading cargo-boats with large padauk logs to be shipped to Madras and Bombay for the Gun-carriage Department.

The contractors' accounts not being closed in time, the expenditure, estimated at Rs. 1,365, was not charged off within the official year. A jetty and a small timber slip in connection with the crane were also constructed, the latter at a cost of Rs. 420. The accounts for the erection of the former were not closed within

the year. For the steam-launch attached to the Kado division a coal-shed was erected at the Battery Point depôt at an expenditure of Rs. 86-1-3.

Sanction was received for the construction at Shwegôn on the Salween of a building to serve as residence and office for the Subdivisional Officer employed specially in controlling the river establishment, but only Rs. 133-12-0 of the amount sanctioned was expended within the year.

The only other expenditure incurred on account of the Kado division was Rs. 50 on a temporary guard-house at the Mèzeik station on the river.

In the East Salween division the bungalow at Kawkareik for the Divisional Officer's residence was completed at a cost of Rs. 4,513 and the guard-house at the Gyaing revenue station at a cost of Rs. 306.

In the South Tenasserim division only some minor repairs were executed, involving an expenditure of Rs. 9 for re-thatching the Mergui plantation bungalow and Rs. 4 for re-oiling the roof of the Sinzeik guard-house. Rupees 8 was also expended on new oars for the boats. No expenditure was incurred in the West Salween and Ataran divisions.

Steam launch *Ataran*.

41. The steam-launch *Ataran*, which was received during the previous year from the Kidderpore Dockyard, has continued to do good service, and appears to be in every way suited to the navigation of the Salween and the tidal portion of its tributaries, the Ataran, Gyaing, and Dôndami rivers.

Owing to rocks being but little submerged in certain portions of the Ataran river in the dry season, it has been found necessary to fix Lower Kyainzeik, about 60 miles from Moulmein, as the limit of navigation at all hours of the tide, and restrict the passage upwards to Natchaung guard village, about six miles distant, to periods of flood-tide, the launch having on one occasion grounded on a rock below that place.

The rocks are, however, few and could be removed or lowered in height as required with an outlay of a few hundred rupees.

The greatest difficulties to navigation in the dry season are, however, met with in the Salween between Shwegôn and Kamamaung, where the water falls so low at times as to cause its surface in places to be studded with rocks and the navigable channel to be confined between sunken rocks. The difficulties and dangers connected with the navigation of this part of the river, of which also the local people know very little, are so great as to render it necessary to suspend navigation on it during the last two months of the dry season.

The position of the rocks is in fact so little known, that on one occasion the launch was steered (fortunately against current) on top of a large, sunken rock by the man acting as pilot.

During the year the launch performed 79 trips, representing a total mileage to and fro of 5,185 miles, or 877½ hours under steam, and earning a sum of Rs. 1,365-15-0 as savings effected in the travelling allowance of officers using her.

The working expenses were,—for wages of crew, Rs. 1,470-4-0; for 80 tons coals, Rs. 2,062-8-0; for oil and wood fuel, Rs. 646-13-4; and for repairs, &c., Rs. 354, making a total expenditure of Rs 4,533-9-4 during the year.

Opening up of streams for floating purposes.

42. An examination was made of the obstructions in the lower course of the Mintha stream, Mintha reserve, South Tenasserim division, to ascertain the extent to which, and length of time during which, the rocks are submerged during the year.

Forester Maung Hnit, who was deputed to this duty, did not visit the locality until September, when, unfortunately, the rains had moderated and the rocks were only partially submerged, but his report shows a high rise of the water to have taken place in July, about 13 feet above the level of the water in September, ample, in his opinion, for light timber being allowed to float down to the mouth of the Mintha chaung.

The Divisional Officer is disposed to doubt the value of these observations, but when the obstructions were examined in 1883 and previously, the high-water

mark was noted as indicating complete submergence at times of even the largest rocks.

It remains now only to ascertain the length of time in July and August the rocks are well covered, and finally to experiment with a few logs, and thus settle definitely the question as to whether the Mintha stream below the mouth of the Nanpayôk chaung will not admit of the extraction of light woods without having recourse to any blasting operations.

CHAPTER IV.

YIELD AND WORKING.

Departmental Operations.

General remarks.

43. As heretofore the operations of the Department during the year have embraced the girdling of teak and other trees, extraction of timber from the forests, collection and disposal of drift timber, sale of timber at depôts, and its conversion and shipment.

Inclusive of some trees girdled at the close of last year and trees which should have been killed during the previous year, the operations of the year under review exhibit a total of 2,700 teak trees and 3,124 trees of other kinds girdled.

The revision of the work also shows it to have been satisfactorily executed as regards selection within reserves, and the size, growth, and quality of the timber.

The extraction of teak timber exhibits a decrease of 3,639·4 tons as compared with the previous year's outturn, the result chiefly of the Salween, West Salween, and Ataran divisions yielding fewer short pieces and crooks which represent the refuse of former years' working, and for which the demand at present has greatly decreased.

It was, however, expected that the outturn of the East Salween division would have been considerably in excess of that of the previous year, arrangements having been made to bring down, before the close of the year, some of the girdled timber of 1882 from the Lower Thaungyin forests, but the pushing work being retarded by the contractor's detention at Moulmein on account of litigation, the timber did not pass out into the Salween till April.

The extraction of timber of other kinds, on the other hand, exhibits an increase of 1,774·7 tons as compared with the previous years, and drift timber operations likewise resulted in a small increase in timber salved and brought to depôt.

1.—Departmental Operations.

Extraction of teak timber by Government agency.

44. The yield in teak timber of the forests worked by Government agency was 21,793 logs, or 7,909·6 tons, as shown below:—

Division.	Logs and pieces.	Tons.
Salween	2,949 ...	361·7
East Salween	8,705 ...	4,979·4
West Salween...	3,988 ...	1,204·7
Ataran	6,151 ...	1,363·8
Total ...	21,793 ...	7,909·6

In the annexed statement (No. 60) the total quantity of teak timber brought to depôt from the Salween division is shown to be as much as 535·4 tons; 125·7 tons of foreign teak timber having been brought in from Kado for shipment to Madras.

The outturn compared with the figures of the former year, as previously stated, exhibits a decrease of 18,017 logs, or 3,639·4 tons, due chiefly to a falling-off of 5,482 pieces and crooks, or 986·4 tons, in the yield of the Ataran forests, of 8,982 pieces, or 1,465 tons, in that of the Dôndami forests, of 2,282 pieces, or 843·8 tons, in the yield of the Yunzalin forests, and 3,763 pieces, or 781·7 tons, in that of the Lower Salween forests in the Salween division.

In the East Salween division, although the outturn increased to the extent of 1,320 logs and pieces, the tonnage decreased by 6·5 tons, there being a decrease of 547·2 tons in the Thaungyin timber of the rains of 1883 and an increase of 540·7 tons in the Haungtharaw and Hlaingbwè timber.

In the West Salween division the outturn of the Upper Salween forests was 444·1 tons in excess of that of the previous year, consequent on the extraction of short pieces of superior quality.

As has been already stated, an increase was expected in the outturn of the Thaungyin forests, arrangements having been made to push in advance down the Thaungyin river the timber worked out of the lower Thaungyin forests in the rains of 1884.

Cost of extraction of teak timber.

45. Owing to the larger proportion of inferior and undersized logs extracted, the average cost of extraction on 6,500 teak logs from the Thaungyin forests was only Rs. 7-15-9 per log.

On 488 teak logs worked out from the Haungtharaw forests and 1,359 teak logs and pieces from the Upper Salween forests, the average cost of extraction was respectively Rs. 8-1-10 and Rs. 7-1-9 per log, while on short pieces and crooks, chiefly of inferior quality, from the Lower Salween, Hlaingbwè, Dôndami, and Ataran forests, it was only Rs. 2-6-5 per piece.

Extraction of timber of other kinds.

46. During the year 5,153 logs, or 3,436 tons of timber of other kinds, the details of which are noted in Statement No. 60, were brought by Government contractors to the Battery Point depôt, Moulmein, or 2,549 tons in excess of the quantity delivered during the previous year.

In the South Tenasserim division no timber of other kinds was brought to depôt at Tavoy, the pyingado timber required for sleeper operations being, under a new arrangement with the contractors, extracted under trade licenses, and as such subject to the fixed rate of duty of Rs. 1-8-0 per log.

There was a decrease in arrivals at depôt of padauk logs and branches to the extent of 249·8 tons, owing to some timber being neaped in the Wagaru chaung a little north of Amherst, and some likewise in the Haungtharaw river consequent on the sudden death of the contractor in charge.

Of pyinma the quantity received at the Battery Point depôt was as much as 2,524 tons, or 1,539 tons in excess of the previous year's deliveries, the timber being required for supply to a local firm for manufacture into tea-boxes.

Thitka timber was also extracted for a similar purpose to the extent of 277 tons in excess of the previous year's receipts, the main sources of supply being the forests at the sources of the Dagyein, a feeder of the Hlaingbwè chaung, and portions of the Ataran forests.

Only 27 thitkado logs, representing 32 tons, were brought to depôt, or 12·3 tons less than the previous year's working, there being no great demand for this description of timber at present.

A new feature in the work of the year was the extraction of 98·1 tons of thingan timber obtained from the trees girdled in accordance with orders in the Ataran forests, but there appears to be no demand for this wood in the round, and probably only small quantities will find purchasers if converted into small scantling suitable for the frames of carts.

Difficulty was also experienced in disposing of timber of this description, as well as thitka and padauk, at the Tavoy depôt, and hence there was no inducement to extract more timber of these kinds during the year under review.

Cost of extraction of other kinds.

47. The average cost of extraction in the case of light woods varied from Rs. 7-12-9 to Rs. 11-4-3 per log, representing Rs. 8-4-0 per ton.

The average on the heavy woods, such as padauk and ingyin, was from Rs. 12-5-9 to Rs. 19 per ton.

Conversion of timber.

48. This work was limited to the conversion of 178 logs of Government teak, measuring 137 tons, into 17 squares (13 tons), 65 tons scantling and planks, and 38,150 shingles,

measuring 633 cubic feet, of which 78 tons were utilized in the construction of the Divisional Officer's quarters at Kawkareik, the guard-house at Gyaing, and the jetty for the crane at the Battery Point depôt.

At Tavoy 40 thitka logs were cut into short lengths and despatched to Messrs. F. Foucar and Co., Moulmein.

Shipping operations.

49. Owing to steamers not being available towards the close of the year, the Department was not in a position to ship a considerable quantity of timber indented for by the Gun-carriage Departments at Madras and Bombay.

The following quantities were, however, shipped during the year :—

	Tons.	C. ft.	In.	Pts.
Teak logs	46	85	11	6
Padauk	141	14	2	11
Ingyin (sâl)	22	87	5	9

From the South Tenasserim division 97·2 tons pyingado scantlings and 29,070 pyingado narrow-gauge sleepers were despatched to Calcutta from Tavoy.

Sales and disposals during the year.

50. The number of logs, sleepers, and scantlings disposed of during the year and sums realized thereon are detailed below :—

	No.	Rs.	A.	P.
Private sales	4,994	68,737	1	4
Auction sales	28,525	1,50,082	11	0
Indent sales	295	27,969	0	0
Sleepers	16,488	33,660	0	0
Scantlings	1,465	1,729	6	6
Padauk log-ends	26	82	8	0
Drift timber	5,492	31,984	10	0
Drift to claimants	2,604	9,951	8	0
Local sales	26	18	0	0
Total ...	54,915	8,24,209	12	10

The prices realized for teak logs, pieces, &c., at the Government auction sales show a falling-off of about 30 per cent. at the close of the year compared with the prices obtained at the commencement.

The following statement gives the selling prices during the year :—

		Rs.	A.	P.
At commencement of the year.	per log	20	14	0
	per piece	6	2	0
	per crook	1	15	9
In August and September.	per log	11	18	7
	per piece	7	1	5
	per crook	1	10	5
At the close of the year.	per log	12	8	6
	per piece	5	14	0
	per crook	1	12	10

Collection of drift timber.

51. The result of the drift timber salving operations of the year resulted in 8,236 sea and river drift teak logs, and 31 logs of other kinds, being collected and brought to depôt at Moulmein, and 10 teak sea-drift logs and 10 logs of other kinds to depôt in the South Tenasserim division, or a total of altogether 8,285 logs.

With the balance of the previous year at Moulmein the total amount available for disposal was 10,021 logs.

Of this quantity, 2,604 logs were made over on payment of salvage to claimants, 5,477 logs were sold by public auction, and 347 transferred to Salween division, making a total of 8,428 logs disposed of, leaving a balance at the close of the year of 1,593 logs.

Expenditure on salving operations.

52. The expenditure incurred in the Salween division amounted to Rs. 29,219-7-1, or an average of Rs. 3-8-5 per log.

The cost of collection in the South Tenasserim division on sea-drift teak timber was about Rs. 11-4-4 per log and on timber of other kinds about Rs. 2-6-0 per log.

1.—*Girdling.*

Girdling operations.

53. In accordance with the sanction of the local Government girdling, operations were conducted to the following extent in the teak forests of the Salween, East Salween, West Salween, and Ataran divisions:—

	Reserved forests. Number of trees.	Unreserved forests. Number of trees.	Total.
Salween division ...	... ...	200 ...	200
East Salween division—			
Block I	854 ...	146 ...	1,800
Block V	... ...	300 ...	
West Salween division—			
Block IV	1,000 ...	... ...	1,000
Ataran	200 ...	... ...	200
Total ...	2,054	646	2,700

The 300 girdled trees noted against Block V, East Salween division, belong to the first period of five years which closed with 1883-84 and would have been killed within that year but for the sudden death of the forester charged with the work.

In addition to the abovementioned work, 3,124 trees of other kinds were girdled, namely,—

	Unreserved forests.		
	Padauk.	Pyinma.	Total.
East Salween division	802	2,022	2,824
Ataran division	300	500	800
		Total ...	3,124

Full details regarding the localities in which the work was carried on will be found noted in Appendix D.

Selection of teak trees.

54. In the East Salween division the 1,000 teak trees killed within Block I were selected by Mr. Hauxwell, Deputy Conservator, the Divisional Officer, and the 300 in unreserved forests in Block V by Maung Tha Gyaw and Maung Shwe U, the Karen girdling writers attached to the working party in Block I and specially instructed by the Divisional Officer.

In Block I they represented very large trees on the hills on both sides of the Ônkaging valley, which for excellence of growth could scarcely be surpassed.

Numerous trees had to be passed over as too large to be removed.

In the West Salween division, Block IV, after 50 trees had been selected in the presence of the Conservator, the work was entrusted to trained Forest Ranger Shwe Ka, who selected all the remaining trees, with the exception of 117, which were, contrary to instructions, marked for the coolies on two occasions by Ti Paw, a Karen girdling writer attached to the party, the explanation being that the forest ranger was at the time prostrated by fever and hence unable to go on with the work in person.

Of the trees thus selected 76 were afterwards inspected by the forest ranger and found up to 7 feet in girth, the minimum size fixed for the selection.

A measurement statement was also submitted of 50 of the trees showing all to be 7 feet in girth and above that, the largest being 12 to 14 feet in girth measured at 6 feet from the ground.

When examined by the Conservator near its close, the work was found to have been satisfactorily performed, the girdled trees having been well selected as regards shape and soundness, and with due regard to the presence of seed-shedding trees.

The Bilakatkyi forests are however somewhat open, with a fair stock in places of II class teak trees and a good proportion also of III and IV class trees, and hence selection is by no means difficult.

The girdling work in the Lower Salween forests of the Salween division was also entrusted to Forest Ranger Shwe Ka and carried out with due regard to natural reproduction.

In the Ataran division the 200 girdled trees were all selected by Mr. Barnard, Assistant Conservator, within the limits of the Pakabo reserve after a preliminary examination in company with the Conservator.

Selection was rendered comparatively easy by the large number of trees of the II class shedding seed as well as the large percentage of I class trees which had to be passed over by reason of unsoundness.

Girdling of trees of other kinds and revision of same.

55. Of the 302 padauk trees girdled in the East Salween division, 102 were killed too late at the close of the dry season of 1884 to admit of the entry being made in the girdling statement of 1883-84. They were all selected by Forest Ranger Maung Pyu in unreserved forest, and 43 of them were, on revision by the Divisional Officer, found to be above 6 feet in girth.

The remaining 200 padauk trees were girdled by Karen girdling writers Maung Tha Gyaw and Maung Shwe U, who are believed to have executed the work well, 97 of the trees being subsequently examined by the Divisional Officer and found to be in every instance 7 feet in girth and above.

The 300 padauk trees girdled in the Ataran division were selected in unreserved forests by two Karens who had received special instructions under Mr. Barnard.

Their work was examined and reported on by Mr. Barnard as satisfactory, such trees as were inspected being found to be well within the prescribed girth.

The 2,022 pyinma trees girdled in the East Salween division were, with the exception of 22 trees, selected by a contractor in the Hlaingbwè unreserved forests and subsequently examined by the forest guard and reported as up to the prescribed girth, namely, 7 feet 6 inches measured at 6 feet from the ground.

The 500 pyinma trees girdled in the Ataran division also stand on unreserved forest areas and were selected by the Karens engaged for the padauk work. Mr. Barnard examined some of the trees and found them to be in girth above the standard fixed.

Revision of girdling work of 1883-84.

56. Forest Ranger Po Tu, West Salween division, inspected 521 of the 650 teak trees noted as girdled in the previous year by Contractor Lamuhè in the unreserved forests in Block I, known as the Upper Salween forests.

The selection was reported as good as regards size and quality, very few trees being observed to be unsound at the base, although scattered chiefly on steep hills, on which large areas are continually under taungya-cultivation.

Only two of the trees were found to be a little below 6 feet in girth.

Expenditure in girdling work.

57. The expenditure incurred and due in the season's work was Rs. 1,606-8-0 for the girdling of the trees, and Rs. 577-8-0 for the requisite establishment and minor expenses, making a total of Rs. 2,184.

2.—Removal of Timber by Purchasers.

General remarks.

58. The special feature of the year under review, in respect to timber removed from the forests by purchasers, has been the great falling off in the quantity reported at the revenue stations compared with the figures of former years.

The decrease is doubtless due in a great measure to the exceedingly low prices prevailing throughout the year for teak of inferior size and quality in the Moulmein market, which served to stimulate the consumption of that particular description of timber for house-building and domestic purposes, and check largely the use of other kinds of timber.

Another cause of decrease was the discovery during the year that mango and some other descriptions of light wood were not saleable, being found unsuitable for the manufacture of tea-boxes.

In the case of the South Tenasserim division, where teak can seldom or never come into competition with timber of other kinds, unless imported at much cost from Moulmein, there has of course been no such falling off in the extraction of timber for house-building and other purposes.

At Tavoy a large consumption of timber in the construction of substantial houses is a noticeable feature of the year; the large quantity of refuse pyingado

sleepers and slabs disposed locally by the sleeper contractors doubtless contributed to some extent to quicken the consumption.

Teak timber removed from forests by leaseholders.

59. The total quantity of teak timber extracted by leaseholders during the year was 1,147 logs and 2,875 pieces, namely, from the—

	Logs.	Pieces.
Mittigeik and Mittigeik-Kodugwe forests, Ataran division	918	114
Mègwa and Kyunchaung forests, Ataran division	50	84
Ataran forest No. 33	8	38
Pandaw forest, Salween division	176	2,689
Total ...	1,147	2,875

Timber of other kinds removed from leased forests.

60. The leaseholder of the Mittigeik and Mittigeik-Kodugwè forests also removed 143 logs of thitka measuring 80 tons, the right to remove all timber, other than teak, having been granted subject to an *ad valorem* duty of 10 per cent.

Timber from the leased forests on which duty was collected at the revenue stations.

61. During the year 3,022 teak logs and pieces were reported for duty at the Ngante and Kado timber revenue stations in the following proportion :—

Pandaw forest, Salween division		18 full-size logs.
		158 under-size logs.
		52 stem-pieces.
		2,637 crooks.
Ataran ...	Kyunchaung and Mogwa forests	64 logs.
	Ditto ditto ...	52 stem-pieces.
	Forest No. 58	8 logs.
	Ditto	38 stem-pieces.

In addition to the above, 74 logs of thitka, measuring 1,551 cubic feet, were passed at the Ngante station on payment of duty.

Sales of timber other than teak in the forests.

62. Sales in the forests were limited to 26 pyingado posts, which realized Rs. 13.

Timber removed from the forests under trade licenses.

63. The total quantity of timber of the reserved kinds extracted under trade licenses and reported for duty from the Salween, East and West Salween, and Ataran divisions, was 687 logs, or 807 tons, being a decrease of 1,520 logs, or 1,227 tons on the previous year's extraction.

Of timber of the unreserved kinds, 10,946 logs, or 5,674 tons were extracted, showing a decrease of 8,868 logs, or 6,352 tons on the quantity reported in 1883-84.

From the forests in the South Tenasserim division timber of the reserved kinds upon which duty was collected amounted to 846 logs, &c., or 1,128 tons, and similar timber of the unreserved kinds to 11,417 logs, &c., or 6,708 tons.

These last figures include 1,521 large pyingado logs brought to Tavoy for sleeper conversion, the sleeper contractors paying the duty and being at liberty to dispose of the rejected sleepers and slabs on their own account.

Minor forest produce removed by purchasers.

64. The only minor forest produce on which duty is levied comprises charcoal, resin, and wood-oil, and as the duty is levied on the number of individuals manufacturing or collecting the same, there is no means of ascertaining the quantity of such produce removed from the forests.

In the Salween, East and West Salween divisions, and Ataran division the number of licenses for charcoal and collection of resin and oil was 57, and the amounts respectively realized were Rs. 33-8-0 and Rs. 114.

In the South Tenasserim division, owing to the orders of the local Government allowing the free manufacture of charcoal in the vicinity of Tavoy, the number of licenses issued was fewer than during the previous year. The total amount realized on charcoal licenses was Rs. 6 in the Tavoy district and Rs. 15 in the Mergui district.

The revenue on No. X licenses for collection of wood-oil in the Tavoy and Mergui districts was Rs. 2,002-8-0 less than that of the previous year, the amounts realized being Rs. 318 in the former and Rs. 771 in the latter district.

A sum of Rs. 491-8-0 was also realized on the sale (by auction) by the Deputy Commissioner, Tavoy, of the right to collect wood-oil on the islands, the shores of

which are yearly leased out as turtle banks, thereby making a total of Rs. 1,580-8-0 collected under this head.

The decrease in receipts under this head noted above is due to the discontinuance in the remaining portion of Tavoy district of the system under which the right to collect oil was yearly disposed of by auction, without any restrictions as to the size, &c., of the trees to be tapped.

Under the forest rules now in force, only Rs. 2 on each individual collector of wood-oil can be charged, as noted in license Form X, whereas formerly in a portion of the Mergui district the people exercising the right of collection in the Kanyin forests were willing to pay at the rate of Rs. 5 yearly on each man engaged in the collection.

It is probable, however, that as the restrictions noted in the licenses are better understood, a larger number of licenses will be taken out, and the revenue will slightly increase in the course of a year or two.

The advisability of placing the collection of "ôndôn" bark (*Teranthera laurifolia*), pyu (*Rhizophra mucronata*), and malaka (*Psidium guyara*) under certain restrictions was the subject of correspondence during the year with the Civil District Officer and Commissioner.

It was decided that the best method of dealing with the matter under present circumstances was to dispose of the right to collect such forest produce yearly in separate revenue circles subject to necessary restrictions under the land and revenue rules.

Minor forest produce the use and sale of which continue free.

65. There are no means of judging of the quantity of the various kinds of minor forest produce which is collected free of duty either for sale or private consumption, except in the case of such produce as happens to pass the revenue stations, but even the figures thus obtained are apt to mislead, as the importers are not compelled under the rules to report or stop at a revenue station.

Free licenses of timber of the reserved kinds.

66. Free licenses under section II of the forest rules were issued to the following extent by the Commissioner of the division and Conservator for the construction of buildings and other works for the common benefit of the public :—

Amherst district	...	...	...	1 license.
Salween do.	...	...	...	8 licenses.
Tavoy do.	...	.	...	1 license.
Mergui do.	...	...	...	11 licenses.

The timber in question comprised :—

Amherst—
Five pyinma and five thingan logs.
Salween—
Forty-five pyinma logs and one teak log.
Tavoy—
Four thingan logs.
Mergui—
Ninety anyin, 16 thingan, two manthin, and two kadut logs.

4.—Summary of Produce removed from the Forests.

Total yield of the forests.

67. The total yield of the forests of the Tenasserim circle during the year was as follows :—

	Teak.			Timber other than teak		
	Logs and pieces	Scantlings, sleepers.	Tons.	Logs and pieces.	Scantlings, sleepers.	Tons.
By Government agencey ...	30,128	...	12,451	5,194	29,986	4,271
By leaseholders	4,022	...	2,681	143	...	80
By purchasers in forests ...	...	...	...	26	...	24
Under trade licenses	...	...	...	24,318	...	16,212
Under free licenses	1	...	1	169	...	126
Total ...	34,151	...	15,133	29,850	29,986	20,713

5.—*Import and Export of Forest Produce.*

The import trade during the year.

68. The import trade of teak from the forests beyond the frontier has continued to respond to the high prices ruling for timber of I class size and quality, and to give evidence of the impulse given two years ago to the working out of unprecedented quantities of "undersized" and inferior timber to the banks of the floating streams.

Owing to as much as 42 per cent. of the arrivals at the Kado revenue station being represented by under-size timber and stem-pieces, the quantity imported, although considerably less in tonnage than the previous year's importation, yet exceeds it in the number of logs and pieces by 40,077, thereby attaining the highest annual outturn numerically yet recorded at Kado.

As has been noted in the report of the previous year, the large outturn of under-sized logs and stem-pieces may be accepted as a sure index of the rapid exhaustion of certain foreign forests.

In this respect the foreign Thaungyin forests continued to take precedence, 55 per cent. of the year's outturn of 54,906 logs and pieces consisting of under-size logs and stem-pieces.

Next in order are the Dagwin forests, the year's outturn of 10,463 logs and pieces comprising 46 per cent. of such timber, and the Gyaingtaung forests showing 32 per cent.

Upon a large proportion of this timber, which was purchased in the forests prior to the great fall in price of such timber, little or no profit can be made.

In some cases heavy losses have been the result, prices ranging from Rs. 20 to Rs. 30 per ton on under-sized timber, namely, logs below 4 feet 6 inches in girth, and Rs. 10 to Rs. 19 per ton for stem-pieces, namely, pieces of any girth, but less than 15 feet in length.

For the greater part of the year these prices were 5 per cent. lower.

Foreign teak timber imported by the Salween and reported at Kado.

69. The number of teak logs and pieces, imported during the year from foreign territory by the Salween river and reported at the Kado revenue station, amounted to 201,828 logs and pieces, having a tonnage of 158,103 tons as shown below :—

	Logs and pieces.	Tons.	Total tonnage.
Karenni—			
Full-size	86,099	76,186	85,986
Under-size	10,167	6,200	
Stem-pieces	7,135	3,600	
Gyaingtaung—			
Full-size	9,822	8,455	10,477
Under-size	861	516	
Stem-pieces	3,766	1,506	
Mainglôngyi—			
Full-size	15,752	15,000	16,559
Under-size	197	105	
Stem-pieces	2,660	1,454	
Thaungyin—			
Full-size	24,460	21,771	35,951
Under-size	9,010	5,400	
Stem-pieces	21,436	8,780	
Dagwin—			
Full-size	5,641	6,000	9,130
Under-size	4,496	2,970	
Stem-pieces	326	160	

Decrease in tonnage.

70. Compared with previous years the year under review stands unrivalled in the number of logs and pieces imported, which is 40,077 in excess of the previous year's importation, but owing to the large proportion of under-size timber and stem-pieces imported, the tonnage shows a decrease of 11,287 tons.

Increase in the importation of under-size timber.

71. The importation of undersize timber and stem-pieces continued to such an extent as greatly to exceed the quantity imported during the previous year.

The following figures show the increase since 1882-83 :—

	Under-size logs and stem-pieces.
1882-83	20,990
1883-84	35,381
1884-85	60,054

and leave no doubt as to the rapid exhaustion of the foreign Thaungyin and other forests being in full progress.

Imports compared with those of previous years.

72. The percentage of increase and decrease in the importation from the several forests was as follows :—

	Increase, per cent.	Decrease, per cent.
Karenni—		
Logs	23	...
Pieces	46	...
Gyaingtaung—		
Logs	...	29
Pieces	...	55
Mainglòngyi—		
Logs	818	...
Pieces	171	...
Thaungyin—		
Logs	12	...
Pieces	31	...
Dagwin—		
Logs	171	...
Pieces	61	...

The yearly importations of foreign teak timber by the Salween for the past five years will be found noted in Appendix E, and the names of the principal importers, with the quantity imported by each, in statement Appendix H.

Foreign timber of other kinds imported by the Salween.

73. The importation of foreign timber of other kinds by the Salween shows a small decrease, namely, 59 logs as compared with 73 logs during the previous year.

The quantity imported comprised—

	Logs.
Thitkado	47
Pyinma	10
Thitpyu	1
Thitni	1
Total ...	59

Transactions in foreign teak timber at Kado.

74. The transactions at the Kado revenue station in foreign teak timber during the year were as follows :—

	Logs.	Tons.
Balance on 1st April 1884	44,407	38,885
Arrivals during the year	201,828	158,103
Total ...	246,235	196,988
Passed on payment of duty at ½ per cent. *ad valorem*	154,190	123,352
Balance on 31st March 1885	92,045	73,636

Transactions in foreign timber of other kinds at Kado.

75. The transactions at the Kado revenue station in foreign timber of other kinds during the year were as follows :—

	Logs.	Tons.
Balance on 1st April 1884	27	27
Arrived during the year	59	47
	86	74
Passed on payment of duty at ½ per cent.	27	27
Balance at close of year	59	47

Registration of hammer-marks used in the timber-trade.

76. During the year 142 new hammer-marks for teak were registered at the Rs. 100 rate of fee and 53 time-expired hammer-marks at Rs. 25 each. Two hundred and sixty-four marks were also renewed before date of lapsing at Re. 1 each, thereby making a total of 459 marks registered or renewed at a cost of Rs. 15,789.

In addition to the above 23 transfers of marks were effected at Rs. 10 each, or Rs. 230 in all, which, with the amount already noted, makes a total of Rs. 16,019 realized in connection with the registration of marks.

Total quantity of foreign timber imported into Moulmein from the Kado revenue station.

77. The total quantity of foreign teak imported into Moulmein and the value of same during the past years are as shown below:—

Year	Logs.	Tons.	Value.
			Rs.
1884 85	154,190	128,352	61,91,504
1883-84	128,711	142,968	80,33,152
Decrease in 1884-85	...	19,616	18,41,648

The average value throughout the year, all round, was Rs. 40-2-6 per log, or Rs. 50-2-6 per ton, showing a decrease compared with the selling price of the former year of Rs. 5-13-6 per ton.

As previously stated, the selling price of under-size timber and stem-pieces was 5 per cent. less than the current rate of Rs. 20 to Rs. 30 per ton and Rs. 10 to Rs. 19 per ton at the end of the year.

Export trade of teak timber.

78. During the year the price of teak in the home or Europe market, as shown in Appendix J, varied between £13 to £18 per ton for I class squares, while freights, as noted in Appendix J, were from 40*s*. to 55*s*.

Consequent on freight by steamers falling 10 shillings per ton, a larger proportion of the exported timber was carried by steamers.

At the commencement of the year, in the Calcutta market, the prices of squares and scantlings stood at Rs. 120 to Rs. 160 per ton. These prices were maintained till September, when they fell to Rs. 95 and Rs. 130 per ton, and after slight variations stood at the close of the year at between Rs. 100 and Rs. 160 per ton.

There were no transactions in the Bombay market owing to its glutted condition till December, when squares sold at Rs. 55 to Rs. 75 per ton.

The year closed with almost similar bad prices.

In the Moulmein market prices of timber in the round, suitable for conversion into Europe squares, varied from Rs. 80 to Rs. 150 per ton, while on timber of II class quality, consequent on the large stock at Kado, exceedingly low prices prevailed, prices ranging between Rs. 15 and Rs. 40 per ton.

Exports of teak.

79. The exports of teak during the year amounted to a total of 95,849 tons and 5,325,600 shingles, valued in all at Rs. 87,08,981, as shown below:—

		Rs.
Teak	logs, &c.	85,79,117
	shingles	85,054
	staves	32,053
	ventilators	2,252
	railway keys	10,505
	Total ...	87,08,981

Value of exports of teak of past five years.

80. The value of exports of teak from Moulmein during the past five years was—

Year.	Rs.
1880-81	75,29,950
1881-82	85,21,896
1882 83	1,01,37,354
1883-84	91,01,315
1884-85	87,08,981

Export of timber other than teak.

81. The exports of other kinds of timber from the port of Moulmein amounted to—

	Tons.	Value.
Timber	3,754	1,90,137
Ventilators		762
Total ...		1,90,899

The shipments to Bombay and Madras consisted chiefly of padauk and ingyin timber, shipped by the Forest Department for the gun-carriage factories, and to Calcutta of thitka and other timber for tea-boxes.

CHAPTER V.

Financial Results.

General remarks.

82. The results of the year have fully verified the forecast taken of the financial position of the Department as noted in the report for 1883-84.

Attention was then drawn to the arrivals of under-sized logs and stem-pieces in unprecedented quantities from the Siamese Thaungyin, and other foreign forests, as being sure to influence very seriously the local market for teak timber of this description, which forms so large a proportion of the outturns of the Government forests in this circle.

With the large stocks of such timber at Kado the prospects of the year at its commencement were not at all encouraging, and as the importation of timber of similar quality has continued unabated during the year, being as much as 42 per cent. of the total quantity imported, there has been no possibility of any improvements throughout the year.

Sales of such timber at Kado could only be effected at Rs. 12 to Rs. 15 per log, or about Rs. 20 to Rs. 25 per ton, and it is not surprising that at the Government auctions the average realized all round was only Rs. 18 to Rs. 24 per ton, representing a reduction of Rs. 23 per ton compared with the prices realized in the early part of the previous year.

A considerable reduction in the price of timber had been anticipated, but not to this extent, when framing the budget estimate for the year.

It was also expected that the girdled and other timber worked in the rains of 1884 in the Lower Thaungyin forests would, under special arrangements, arrive at the depôt in time to admit of its disposal within the official year, and the receipts were consequently estimated at Rs. 5,90,000.

The special arrangements in question, however, broke down and the timber did not pass into the Salween till April, the failure being largely due to the detention some time in Moulmein of the contractor by reason of a lawsuit.

As a result of this failure in the early arrival of the Lower Thaungyin timber, and of the neaping of some padauk timber, as well as short deliveries from several forests, and inability to find freight for a considerable quantity of timber ready for shipment for the Gun-carriage Department, the receipts at the close of the year fell short of the budget estimate by Rs. 1,90,846. Savings in expenditure were, however, effected to the extent of Rs. 1,66,412 whereby, notwithstanding the large decrease in receipts, a net revenue was realized of Rs. 91,540.

Revenue and expenditure.

83. The cash receipts during the year, the particulars of which will be found in Appendix G, amounted to Rs. 3,99,654, contributed by the several divisions as shown below :—

	Rs.
Salween	24,313
East Salween	1,38,173
West Salween	23,636
Ataran	75,770
Kado	87,363
South Tenasserim	50,429
Total ...	3,99,654

The expenditure during the year, likewise detailed in Appendix G, was as follows :—

	Rs.
A.—Conservancy and working	2,22,995
B.—Establishment	85,119
Total ...	3,08,114

The cash surplus in favour of the year was consequently only Rs. 91,540, the circumstances leading to which have been explained in the preceding paragraph.

84. The receipts for the year having been estimated at Rs. 5,90,000, the cash receipts fell short of the budget estimate by Rs. 1,90,346.

Comparison of revenue with figures of the budget and the previous year.

The difference is accounted for by the revenue under I*a*, Sales of timber extracted by Government agency, falling short of the estimate by Rs. 1,96,562, while under II, III, IV, and V, allowing for a decrease under certain heads, there was an increase altogether of Rs. 6,216.

The difference is accounted for by short disposals of Thaungyin timber, equivalent to about Rs. 57,000, also of timber for Gun-carriage Departments to the extent of Rs. 50,000, and of pyingado sleepers at Calcutta of about Rs. 25,000, the balance being explained by short disposals from the Ataran, Salween, and West Salween divisions, and by the differences in prices realized on such timber compared with the original estimates.

Savings in expenditure.

85. The expenditure of the year compared with the budget estimate exhibits a saving of Rs. 1,66,412 as shown below:—

	Rs
Budget estimate	4,74,526
Actual expenditure	3,08,114
Total ...	1,66,412

As a consequence of the short arrivals of timber at depôts, there was a saving under AI*a* of Rs. 1,38,276.

Under AVI*a*, Purchase of cattle, there was a saving of Rs. 2,000, and under AVII*b*, Buildings, and AVIII*a*, "Demarcation," the savings amounted in all to Rs. 13,780, while under BI*b* and BII*b* the amount saved was Rs. 13,518.

There were additional savings under minor heads, but under AIV*a* there was an excess expenditure of Rs. 4,048 to meet the cost of additional establishment entertained during the year on the Salween river, and a small excess expenditure likewise under AVIII *a* to *e*.

86. At the close of the year the outstandings in the contractor's and disburser's ledgers amounted to Rs. 1,25,166, of which Rs. 1,05,986 represented advances covered by mortgage of elephants and work done, and Rs. 12,084 the amount which has since been recovered, the balance representing minor advances on works in progress and in course of early adjustment.

Outstandings.

CHAPTER VI.

General Remarks.

87. Mr. T. H. Aplin, Officiating Deputy Conservator, 3rd grade, was transferred to the Pegu circle, and made over charge of the Salween, Kado, and Ataran divisions to Mr. A. Weston, Officiating Deputy Conservator, on the 1st December 1884, who had been in charge of the Prome division, Pegu circle.

Changes in the controlling establishment.

Mr. H. B. Ward, Officiating Deputy Conservator, 4th grade, was also transferred to the Pegu circle, and made over charge of the West Salween division to the Conservator on the 7th August 1884.

On being relieved by Mr. Ward at Shwegyin, Mr. T. A. Hauxwell, Officiating Deputy Conservater, 3rd grade, who was transferred to this circle, relieved Mr. J. Murray, Assistant Conservator, 2nd grade, of the charge of the East Salween division on the 13th December 1884, this latter officer then proceeding to take charge of the newly constituted Shwegôn subdivision on the Salween river on the 19th December 1884.

Mr. G. H. Barnard, Assistant Conservator, 3rd grade, appointed under covenant with the Secretary of State for India, arrived in Rangoon on the 5th January and was posted to the Tenasserim circle. He reported his arrival at Moulmein on the 7th January and was attached to the Salween division.

Captain C. T. Bingham, Officiating Deputy Conservator, 1st grade, reported his return at Rangoon from furlough on the 23rd June and was retained for duty in the Pegu circle.

The only other officers absent during the year were Mr. C. W. Palmer, Officiating Deputy Conservator, 3rd grade, on privilege leave from the 20th May to the 5th June, and Mr. H. B. Ward, Officiating Deputy Conservator, 4th grade, on privilege leave from the 20th October to the 13th November 1884.

Health of superior officers.

88. With some few exceptions, the health of superior officers was on the whole good throughout the year. Mr. Hauxwell was detained 10 days at Kawkareik, his headquarters, by an attack of dysentery, and Mr. Ward was temporarily indisposed at times while at Papun and Moulmein from the effects of malaria and exposure.

Changes in the subordinate forest and office establishments

89. The changes in the subordinate forest and office establishments, as noted in paragraph 11, were limited to the dismissal of Forest Ranger B. Legeois, Kado division, and Forester Shwe Ba, East Salween division, and nomination of Mr. Benjamin to the former vacancy, and the filling up of vacancies in the West Salween and South Tenasserim office establishments, and of two vacancies in the grade of forester in the East Salween and Ataran divisions, as well as two similar vacancies caused by resignations of forest guards in the West Salween division.

One vacancy in the East Salween subordinate establishment was occasioned by a forest guard deserting his beat and proceeding across the frontier to work timber.

Health of subordinate establishment

90. The health of the greater portion of the subordinate establishment was good throughout the year, the only cases of serious illness being that of San Mi, Forester of the Lower Thaungyin Forests, in the East Salween division, who died of dysentery in the early part of the year, and of Forester Maung Su, of the South Tenasserim division, who was very ill at the close of the year, the result chiefly of wrong treatment at the hands of a Burman doctor.

Organization of forest ranges and beats.

91. Only minor alterations took place in the forest ranges and beats in the several divisions, which continue as here shown.

I.—WEST SALWEEN DIVISION.

(a) West Salween range—

ONE FOREST RANGER WITH SIX BEATS.

Beats.	
(1) Upper Salween	2 Forest guards, 1st grade.
(2) Wainu	1 Forester, 6th grade
(3) Sinzwè	1 Forester, 6th grade.
(4) Kahilu	1 Forest guard, 2nd grade
(5) Bilin	1 Forester, 6th grade.
(6) Dondami	1 Forester, 6th grade.

II.—EAST SALWEEN DIVISION.

(b) East Salween range—

ONE FOREST RANGER, 5TH GRADE, WITH BEATS NOS. 1 TO 6.

Beats.	
(1) Upper Thaungyin	1 Forester, 3rd grade 1 Forester, 4th grade.
(2) Middle Thaungyin	1 Forester, 1st grade
(3) West and East Mèpalè and Kamawkalè...	1 Forester, 5th grade 1 Forest guard.
(4) Lower Thaungyin	1 Forester, 4th grade.
(5) Hlaingbwè	1 Forester, 1st grade.
(6) Haungtharaw	1 Forester, 4th grade. 1 Forest guard, 2nd grade.
(7) Gyaing revenue station	1 Forester, 5th grade. 1 Forest guard, 2nd grade.

III.—ATARAN DIVISION.

(c) Ataran range—

ONE FOREST RANGER, 5TH GRADE, WITH BEATS NOS. 1 TO 5.

Beats.	
(1) Dali	1 Forester, 5th grade
(2) Natchaung and Gôngyi	1 Forester, 6th grade.
(3) Pakabo and Ma-u	1 Forester, 6th grade.
(4) Kyunchaung	1 Forest guard, 1st grade
(5) Megwa and Thinganyinaung ..	1 Forester 4th grade
(6) Ye	1 Forester, 6th grade.
(7) Amherst	1 Forester, 6th grade.
(8) Mudon	1 Forester, 6th grade
(9) Ngantè	1 Forest guard, 1st grade

IV.—SOUTH TENASSERIM DIVISION.

(*d*) Mergui range—

ONE FOREST RANGER, 4TH GRADE, WITH BEAT NO. 6.

Beats.

(1)	Upper Tavoy	1 Forester, 6th grade.
(2)	Lower Tavoy	1 Forester, 1st grade.
(3)	Nabulè	1 Forester, 4th grade.
(4)	Taungbyauk Mintha	1 Forest guard, 5th grade.
(5)	Tavoy and Sinzeik depôt	2 Forest guards, 1st and 2nd grade.
(6)	Mergui and Naukale depôt ...	1 Forester, 5th grade. 1 Forest guard, 1st grade.

V.—SALWEEN AND KADO DIVISION.

(*e*) Shwegôn range with one Forest Ranger, 6th grade, with boat's crew.
(*f*) Battery Point range—

ONE FOREST RANGER, 5TH GRADE, WITH BEAT NO. 1.

Beats.

(1)	Battery Point depôt and Moulmein river	1 Forester, 4th grade.
(2)	Moulmein and Balugyun	1 Forest guard, 2nd grade.
(3)	Zinmathwè	1 Forest guard, 1st grade.

Efficiency of the subordinate forest establishment.

92. In the West Salween division the forester and forest guards, who are all Karens, have worked satisfactorily, although their efficiency would doubtless be enhanced if they possessed some little education.

Forest Ranger Po Tu, in this division, discharged his duties with his usual care, tact, and ability, and did good service in engaging Kamu coolies at Hlagônmyo, in Siamese Shan territory, for plantation and other work, the undertaking and long journey to and fro involving an absence from Papun, his headquarters, from 24th October to the 13th December 1884.

In the Salween division, as already noted in paragraph 11, one forest ranger proved himself untrustworthy in matters connected with drift timber and was dismissed, the Conservator's order being upheld on appeal to the Chief Commissioner.

The other forest ranger, Mr. Agaety, on the Salween, and other subordinates worked fairly well.

With two exceptions, involving want of energy and trustworthiness in small matters of detail, the subordinate establishment in the Ataran division appear to have worked satisfactorily.

In the South Tenasserim division the forest ranger, who is employed chiefly on depôt and revenue work in Mergui, applied himself creditably to his several duties.

In the Tavoy district, with the exception of Forester Maung Nit, whose conduct has not been altogether such as to please the Divisional Officer, all the other subordinates have apparently worked well.

In the East Salween division Forest Ranger Maung Pyu (a Karen) worked well and gave satisfaction, though apparently unable to act very well at times in an independent capacity.

With the exception of one forester dismissed for general irregularity of conduct and misbehaviour, the remainder of the subordinate establishment in this division appear to have worked fairly well.

A difficulty is still experienced in procuring suitable candidates for vacancies in the grade of forester, and of a really efficient clerk for office work on the pay sanctioned.

Elephant establishment.

93. The health of the departmental elephants has been good and no casualties occurred during the year, but the elephant which went astray from Kyain in the Ataran division on the 31st October 1883 was, with the sanction of the local Government, struck of the books, she having escaped across the frontier and apparently joined the wild herds.

No additions by purchase were made, but one of the Battery Point depôt elephants gave birth to a female calf on the 28th November 1884, which was doing well up to the close of the year, although artificial feeding has had to be adopted to some extent of late, the mother elephant being again reported as being in calf.

At the close of the year the elephant establishment numbered in all eight animals of which one male, one female, and calf are at Battery Point timber depôt, Moulmein, two females in each of the Ataran and East Salween divisions, and one female in the West Salween division.

Appendix A exhibits the cost of feed and keep of the elephants to have been Rs. 37-6-0 per animal, those in the forests being only occasionally supplied with paddy, while at the depôt they are furnished with paddy at the rate of one basket daily for the large male elephant and half a basket for the female.

The grass fodder for these animals is collected along the banks of the river and brought in daily by boats.

Purchase of elephants.

94. For the Military Department, Public Works Department, and other departments, as well as to meet requisitions from the Pegu circle, a total of 66 elephants, as noted below, were purchased in the latter half of the year and April, and forwarded to their various destinations :—

Military Transport Department	Toungo	...	...	39	45
	Moulmein	...	..	6	
Public Works Department, Tavoy	...	...	...		15
Civil Department, Toungoo ...	...	...	...		1
Topographical Survey, Rangoon	...	...	...		3
Pegu circle	...	...	...		2
			Total ...		66

The elephants for the Military Department were purchased at an average cost of Rs. 1,198-2-6 per elephant, those for the Public Works Department at an average of Rs. 1,294-10-8 per animal, and those for the Civil and Topographical Survey Departments at an average of Rs. 1,173-6-3.

The elephants supplied to the Pegu circle were males for dragging purposes, and the average was consequently as high as Rs. 1,625.

With the exception of three of the animals, all were selected, subject to the Conservator's final approval, by Pathè, a Karen of Dunyin Sigyaw, who, in common with most of the Amherst district Christian Karens, has been for many years engaged in the elephant trade and has acquired great experience in the treatment and handling of these animals.

The elephants were all procured within the Amherst district from the Karens and others in whose possession they had been some time, or who had imported them from Siamese Shan territory. But for the great demand for elephants to work the Upper Burma and other foreign forests, the departmental purchases would have been doubtless effected at a lower figure and larger animals would have been forthcoming.

The average price paid by the Bombay Burma Trading Corporation, the chief purchasers, on 43 elephants forwarded by them during the year to their forests in Upper Burma was as high as Rs. 1,753.

Interchange for seeds and plants.

95. Fifteen bags of selected teak seed from the Lower Salween forests were supplied to the Deputy Conservator of Forests, Orissa, at Cuttack.

Specimens of wood, &c.

96. Three specimens of each of the following kinds of wood in 12 inches × 9 inches × 3 feet sizes were forwarded during the year to the Secretary to the Government of India, Home Department, for the London Exhibition to be held in 1886 :—

Rhizophora mucronata	....	....	Pyu.
Cordia fragrantissima	....	....	Kalamet.
Callophyllum inophyllum	....	....	Pôngnet.
Tetremeles nudiflora	....	....	Thitpauk.
Vatica lancefolia	....	....	Panthitya.
Millingtonia hortensis	....	....	Egayit.
Vitex len coxylon	....	....	Tauksha.
Quercus lappacea	....	....	Thitkya.
Podocarpus bracteata	....	....	Thitmin.
Xanthopyllum flavescens	....	....	Thitpyu.

Dipterocarpus lævis	....	....	Kanyin.
Dipterocarpus tuberculatus	....	....	In.
Gluta tavoyana	....	....	Thayetthitse.
Adenanthera pavonina	....	....	Ywegyi.
Garollia uttergerima	....	....	Maniawga.
Pinus merkusii	....	....	Tinyu.

Pinus resinfum, Pinus merkusii, and *Pinus khassya*.

97. Information relating to the extent and resources of the pine forests in this circle was submitted to the local Government after the necessary local inquiries had been instituted.

The pine forests of *Pinus khassya* are estimated to cover an area of between 35 and 40 square miles on the higher hills at the sources of the Yunzalin river, where, owing to the spread of taungya-cultivation, these forests are only to be found on the crests and steeper slopes of the hills from an altitude of 3,500 feet and upwards.

The trees attain large proportions, and the larger trees yield turpentine in considerable quantities; but from their great distance from Papun, the highest navigable point on the Yunzalin river, it is doubtful whether the resources of these forests in turpentine could be made available for disposal at Moulmein.

The *Pinus merkusii*, on the other hand, occurs chiefly in the In forests on low hills, and high undulating ground in the Thaungyin valley, at an elevation varying from 800 to 1,500 feet, and in the event of a suitable cart-road being made between Kawkareik and Myewadi, and the local people collecting the turpentine in the manner in which forest produce is usually collected by them, namely, in their spare hours, there is reason to believe that its produce could be collected and removed to Moulmein at a cost sufficiently low to admit of its finding ready sale.

With hired labour, at the high rate of wages current in this province, it would be hopeless to expect such a result, experiments showing the collection to cost as much as 1 anna 10 pies per lb., equivalent to 15 annas 8 pies per gallon.

Until the trees have attained a girth of 3 feet, no appreciable quantity of turpentine is secreted, and, as far as has been ascertained up to the present, the yield of large trees in a hot season, lasting three months, would appear to be as follows :—

Girth.					lbs.	oz.
3 feet	...	...	...	...	6	12
4 feet	...	...	...	...	7	14
5 feet	...	...	...	...	10	14
6 feet	...	...	...	...	12	...

In order, however, to ascertain definitely the yield of these pine forests, the collection will have to be made on certain sample areas, and the number of trees of different sizes per acre also ascertained.

Tours of Conservator.

98. On the 8th April the Conservator proceeded to Kawkareik, East Salween division, and thence by the Paing-Kaladaung route through the hills to the Mèkanè and Kyaukket reserves in the Thaungyin valley, arriving at the latter reserve on the 12th. Thence proceeding north on the 15th, the Conservator visited the West Mèpalè reserve fire-traces and plantations between the 17th and 20th, and returned to Moulmein by the 24th April.

Between the 7th and 14th May the Conservator visited Tavoy and Mergui, and inspected the offices and the Government plantation.

On the 27th August the Conservator proceeded up the Salween to Kamamaung, and thence up the Yunzalin river from Kawkareik on the 29th.

After halting at Kadaingti on the 31st, the Conservator marched to the Sinzwè reserve, and on to Papun by the 2nd September.

The Wamu reserve plantations were examined by the Conservator on the 4th, the Sinzwè reserve plantations on the 5th and 6th, and those in the Kahilu reserve on the 8th; the Conservator returned to Moulmein by the 10th September.

In connection with the selection and purchase of elephants required for the Public Works Department, the Conservator visited Megalôn, on the Haungtharaw river, on the 22nd and 23rd September, Kado on the 22nd and 31st October, and Mawbyi, on the Salween, on the 25th October.

Between the 6th and 9th December the Conservator proceeded *viâ* Kya-in, on the Ataran river, to Tinyaka-e in the Haungtharaw valley, and after examining the padauk tracts in the vicinity and north of Tinyaka-e, the Conservator marched from Uchuzeik on the 12th December and arrived at Kawkareik on the 14th.

Proceeding on thence in company with the East Salween Divisional Officer *viâ* Myewadi on the 16th, and passing the South Myewadi-Kyaukket, Balèdo, and Megala reserves, the Conservator arrived at the site selected for girdling operations in the Ônkaraing reserve early on the 22nd.

Between the 24th and 27th portions of the boundaries of the Ônkaraing and Gawlè reserves were inspected by the Conservator, who then returned from the Ônkaraing girdling camp on the 29th, and arrived at headquarters on the 3rd January.

Between the 16th and 29th January the Conservator visited Dali, Natchaung, Gôngyi, Kyunchaung, and Pakabo reserves, in the Ataran division, in company with Mr. Barnard, Assistant Conservator, and, leaving that officer to carry on girdling work in the latter reserve, returned to Moulmein by the 31st.

Leaving town again on the 10th February, the Conservator marched from Wutkyi on the Salween on the 12th *viâ* the Kyunsaing forests, and Kyayu on the Dôndami river, to the Tagelaung, Ônkangyi, and Bilakatkyi reserves, arriving at the latter on the 17th.

The 18th was devoted to instructing Forest Ranger Shwe Ka in girdling work, and on the 19th, marching north by the sources of the Dôndami river and Mèchaungzeik on the Bilin river, the Conservator examined *en route* the plantations in the Mèwaing and Minnannwè reserves, and arrived at Papun on the 25th.

The Wamu and Sinzwè reserves were visited between the 26th and 28th February, and the Kahilu reserve on the 2nd March, and marching from Kadaingti on the 3rd, the Conservator again inspected the girdling work in the Bilakatkyi reserve, and returned to headquarters *viâ* the Dôndami valley route by the 10th March.

Services of officers and subordinates.

99. Although most of the divisions were subjected to a change of officers during the year, yet it is satisfactory to be able to note that the work in progress did not suffer, Mr. Hauxwell applying himself to his girdling and fire-tracing work with commendable energy, and Messrs. Weston and Murray carrying on their new duties satisfactorily, although the organization and working of the large additional establishment on the Salween was only commenced at the latter part of the rains.

The control and management of the other divisions were also satisfactory, and the Conservator was also satisfied on the whole with the work of his office superintended by Mr. Johnson.

W. J. SEATON, LIEUT.-COL.,

Conservator of Forests, Tenasserim Circle.

APPENDIX AIa.

THE following amendments in the rules under the Burma Forest Act, 1881, have been made by the Chief Commissioner :—

Revenue Department Notification No. 66, (Forests), dated the 27th November 1884.

1. In Revenue Department Notification No. 7, dated the 10th January 1883, after the words "Pegu circle," the following words to be added : "The area occupied by the Rangoon and Irrawaddy Valley State Railway, including the railway stations along the line."

2. At the beginning of Section III of the General Rules under the Act the words "Rules Nos. 16 and 17" to be substituted for the words "Rules 12, 13, 14, 15, 16, and 17;" and immediately above Rule 11 the following words to be added : "Rules Nos. 12, 13, "14, and 15 apply to the abovementioned areas, and also to the area occupied by the Ran- "goon and Irrawaddy Valley State Railway, including the railway stations along the line."

3. In Rule 20, after the word "obstruct," the following words to be added : "otherwise than as permitted by a license granted under Rule 37."

4. In Rule 21, line 4, for the words "Rule 9" the words "Rule 20" to be substituted.

5. At the end of Rule 24 the following words to be added : "or from any railway station on the Rangoon and Irrawaddy Valley State Railway."

6. In Rule 34, for the words "the Salween river between the mouth of the Thaungyin river and Mèzeik," the following words to be substituted : "the Salween river between the mouth of the Thaungyin river and Kamawlè."

7. In Rule 37, after the words "form No. XIV," the following words to be added : "or in form No. XIV (a)."

8. In Rule 39 the following to be substituted for the explanation to this rule :—

Explanation.—The word "log" means a piece of timber 18 feet or more in length and 4 feet 6 inches or more in girth.

Yatthits or under-sized logs, namely, logs 18 feet or more in length but less than 4 feet 6 inches in girth, and short pieces or stem-pieces, namely, logs or pieces under 18 feet in length, but over 4 feet 6 inches in girth, will be paid for at half the rates payable for a "log," and pieces less than 18 feet in length and less than 4 feet 6 inches in girth will be paid for at one-fourth the rate payable for a "log."

In the same rule the following rates to be substituted for those entered in the rules for the salving of timber in the Tenasserim circle, Salween division, above Kado :—

I.—ABOVE KADO.

The teak timber salved and kept at a kyodan or boom above Kamawlè.	Such rate, not exceeding four annas a log, as may from time to time be fixed by the officer in charge of the Salween division

For teak timber salved and stored on the bank between Kamawle and Upper Myainggyi—

	Rs.	A.	P.
Per log	1	0	0

At or below Mibôn—

Per log	2	0	0

In the case of woods other than teak half the abovementioned rates. When rafts, or portions of rafts, are carried down from above Gyochaung, such rates shall be paid as may be considered sufficient by the officer in charge of the Salween division.

In the same rule, for the words "Martaban Forest Department guard-house" the words "Martaban pagoda" to be substituted in two places, and the word "in" to be substituted for the word "on."

9. In license form No. IV, after the word "trees" where it first occurs in the second line of that form, and in license forms Nos. IV(a), V, and V(a), after the word "timber" in the second line of each of these forms, the following words to be inserted : "of a minimum girth of feet, measured at 6 feet from the ground."

10. The following additional license form to be added to the appendix :—

No. XIV (a).

License to collect drift timber under Rule 36, on the Salween river, at a kyodan or boom has been granted to of subject to the following conditions :—

(i) that the kyodan or boom shall be constructed at ;

(ii) that no timber bearing marks other than those entered below shall be collected ;

(iii) that timber for the collection of which another license in Form XIV (*a*) has been granted shall be allowed to drift past the boom without charge;

(iv) that timber in course of removal by holders of licenses in Form XIV or XIV (*a*) shall be allowed to pass the boom free of charge;

(v) that timber not covered by this license or by any other license in Form XIV (*a*) may be salved and shall be made over to the holder of a license in Form XIV on payment of a sum not exceeding annas a log;

(vi) that the boom shall be constructed in such a manner as not to interfere with boat traffic in the river;

(vii) that this license shall cease to be in force on the day of 188.

Breach of any of the conditions of this license will render the holder liable to forfeiture of the license and the punishment provided under the forest rules.

11. In Form No. VI of the forms appended to the Directions for the management of Kado timber station, for the words "of the undermentioned logs of timber" the words "of the undermentioned logs of timber" to be substituted.

Revenue Department Notification No. 21 (Forests), dated the 12th March 1885.

The following revised rule and form are published in supersession of Rule 8 of the rules under the Burma Forest Act, 1881, published in this Department Notification No. 25, dated the 3rd July 1884, and of Form No. VI, published in this Department Notification No. 11, dated the 10th January 1883:—

Rule 8.—No person shall cut, saw, convert, or remove any tree other than a reserved tree, with the exception of bamboos, on any land at the disposal of Government not included in a reserved or village forest, or the timber of any such tree, unless either—

(*a*) such tree or timber is cut, sawn, converted, or removed for the building of bridges, rest-houses, or other works of public utility; or

(*b*) such tree or timber is cut, sawn, converted, or removed for use within the revenue circle wherein, or within five miles of the place in which such tree or timber is produced, for *bonâ fide* agricultural, fishery, or domestic purposes; or

(*c*) such tree or timber is cut for immediate conversion into firewood within the limits of the forests in which it is cut, and before passing the station at which revenue would be ordinarily payable; or

(*d*) such tree or timber is cut, sawn, converted, or removed under, and subject to, the conditions of license granted by the Deputy Commissioner or Forest Officer of the district, or by any officer, empowered by the Deputy Commissioner in that behalf, in one or other of the forms Nos. VI, VII, VIII, and IX given in the appendix to these rules.

Form No. VI.—Trade License or Unreserved Timber.

License to cut, saw, convert, remove, or otherwise utilize timber of the unreserved kinds from forest circle district, is granted under Rule 8 of the Forest Rules, to of , under the following conditions:—

(1) that payment is made at the rate of—

	Rs.	A.	P.	
Dugyi or luza	2	0	0	per log.
Yathit	1	0	0	per log.
100 small posts	10	0	0	
100 poles below 1-foot girth	0	6	0	

at such places as may be entered on the reverse;

(2) that no such timber shall pass a Government revenue station, or such places as may be entered on the reverse of the license without paying revenue in full;

(3) that breach of any of the above conditions will render the holder liable to forfeiture of the license and confiscation of the timber, as well as to the punishment provided in the Forest Rules.

MOULMEIN:
The 27th June 1885.

W. J. SEATON, *Lieut.-Col.*,
Conservator of Forests, Tenasserim Circle.

REPORT

ON

FOREST ADMINISTRATION

IN

THE PEGU CIRCLE

For the year 1884-85,

BY

E. P. POPERT, Esq., Offg. Conservator of Forests.

INTRODUCTION.

Forest Act and Rules.

A FEW alterations affecting the Pegu circle have been made in the rules during the year under review.

Limit of area under section 46 extended.

2. The limits of the area under section 46 of the Act (within which all unmarked wood shall be deemed the property of Government) have been extended to include the area occupied by the Rangoon and Irrawaddy Valley State Railway (Revenue Notification No. 66, dated the 27th November). The extension was necessary for the effectual control of timber being brought to Rangoon by rail.

Alterations of section II of the rules.

3. Section II of the rules has been considerably modified. By Notification No. 25, dated the 3rd July 1884, the omission pointed out in paragraph 4 of last year's report was rectified.

Rule 5 has been changed and is now only applicable to "land at the disposal of Government not included in a reserved or village forest."

The license No. III, which permitted felling, &c., of teak upon land held by a grantee or lessee, has been cancelled and, consequently, omitted from those mentioned in Rule 7. By Notification No. 21, dated the 12th March 1885, Rule 8 has been made clearer and persons cutting fuel are exempted from taking out a license, provided the conversion takes place within the limits of the forest where cut.

Salvage rates altered.

4. In Rule 39 the rates which Government is entitled to demand for salvage of teak timber have been reduced for logs salved above and including Toungoo, and increased for those salved in the Hlaing, Pegu, and Paunglin rivers, and brought to the Government depôt, Alôn. These rates are more in accordance with the actual cost of collection.

Working of rules satisfactory.

5. The rules concerning unreserved timbers have generally worked smoothly and well, and no complaints have reached the Conservator. In the Toungoo, Shwegyin, Rangoon, Prome, and Tharrawaddy divisions the rules referring to the free extraction of wood are now fairly understood by the people, and in the Western it is merely a matter of time. This division, comprising the Bassein, Thôngwa, and Henzada districts, has a very weak staff of subordinate forest officials, and the subordinate civil authorities know little or nothing of the rules. It is proposed to compile a simple compendium (in Burmese) of the Act and rules for the use of petty officials and others, and it is hoped this may prevent misunderstandings similar

to those referred to in paragraph 22 of the Chief Commissioner's Resolution on last year's report.

Distribution of officers.

6. Mr. E. P. Popert, Officiating Conservator, assumed charge of the circle from Mr. H. C. Hill on the 31st January 1885. All divisions, except Tharrawaddy, have been subjected to a change of officers during the year, and the following shows the distribution of the staff at its close:—

Captain Bingham, Western division.
Mr. Carter, Tharrawaddy division.
Mr. Nisbet, Rangoon division.
Mr. Aplin, Working Plans division.
Mr. Thellusson, Toungoo division.
Mr. Ward, Shwegyin division.
Mr. Slade, Prome division.
Mr. Hoghton, attached to Working Plans division.
Mr. Hobart-Hampden, Northern Tharrawaddy subdivision.

Conservator's tours.

7. Mr. Hill, Officiating Conservator, left Rangoon on the 3rd April for Toungoo, inspected Pyunchaung, Thandaung plantations, and then travelling through the Kabaung and Nawin reserves, examining the plantations *en route*, reached Prome on the 7th May and returned to Rangoon on the 10th. From the 7th to the 10th July the revenue stations at Tawlate and Sanywe were inspected. On the 6th and 7th August the Conservator visited Tunte and Tilawa by launch, and on the 11th started for Toungoo, inspecting the timber operations on the Sittang on the way up. Toungoo and Shwegyin offices were examined, and the Conservator returned to Rangoon on the 22nd. From the 24th to the 29th he was absent with the Chief Commissioner at Henzada. During September, from the 15th to the 20th, the Conservator was inspecting Prome and the Hlègu revenue station.

From the 15th to the 19th November Bassein and Ma-ubin were visited, and from the 22nd to the 1st December the Conservator was away on inspection of the Bwet reserve. From the 4th December to the 8th January he was travelling through the Tharrawaddy and Prome divisions, visiting the Working Plans division, inspecting the teak and cutch taungya plantations in the Thônzè, Kôn-Bilin, Kangyi, Shwele, and Nawin reserves. Mr. Popert started on the 3rd February and was absent 19 days, examining the forests and reserve boundaries in the Mindôn township of the Thayetmyo district. On the 24th February he left and was away until the 10th March, visiting the plantations, girdling, and other work in the Mokka-Bilin reserves, also working with the Working Plans in the Bilin reserve. On the 16th March he left to inspect the blasting, girdling, planting, and demarcation work in the Zamayi reserves, Rangoon division, and reached Shwegyin on the 31st March.

CHAPTER I.

AREA AND BOUNDARIES.

1.—Area.

Additions to reserves.

8. The increase to the area of reserved forests is as follows :—

Division.	Reserve.	Area in square miles.
Shwegyin	Kyôntaung	6
Toungoo	Lônyan	17
	Sabyin	41
	West Swa	60
	Gwethe	52
	Kanni	·44
	Gônwe	10
	Thandaung	18·79
	Total ...	205·23

The Thandaung reserve though sanctioned as a forest reserve and included in Form No. 49, is of no value to the Department; it has been taken up for the protection of the proposed sanitarium. The total area of reserves now amounts to 3,225 square miles, of which 402 square miles are Karen areas. The result of correct survey proves the Kôn-Bilin reserve to be 25 instead of 20, and the Môkka and Kadin Bilin to contain only 118 square miles with 32 square miles of Karen areas. This explains the alterations in Form No. 49.

Reserves in Toungoo division still unsanctioned

9. Owing to non-receipt of the further reports from the Civil Officers called for by the Chief Commissioner, Myohla proposed reserve (settled in 1882) and the Pabè and Chaungmangè in the Toungoo district still remain unsanctioned.

Extension of South Zamayi reserve not yet settled.

10. The proposed extension of the South Zamayi reserve mentioned in last year's report has not yet been settled.

Proposed reserves in Shwegyin division.

11. Three areas in the Shwegyin division, amounting to 80 square miles, were preliminarily notified, but no settlement took place before the close of the year.

Proposed cutch reserves abandoned.

12. For the reasons stated in paragraph 10 of last year's annual report, the proposals for cutch reserves in the Thayetmyo district have been rejected by the Chief Commissioner and, as a tentative measure, the formation of village cutch forests has been sanctioned. The general management of these forests is to be undertaken by a committee of villagers and not by the Forest Department. The rules sanctioned will be found in Appendix O.

Reservation in the Western division.

13. The large tract in the Henzada district proposed for reservation by Mr. Pickard in 1883-84 was objected to by the Deputy Commissioner and the Commissioner of the Irrawaddy Division. Orders were consequently issued to submit proposals for two or more smaller areas, but the examination of the forests for this purpose was not concluded at the close of the year.

Proposals for further reservation.

14. In the Rangoon division preliminary proposals have been submitted to the Deputy Commissioner of the Pegu district for the further reservation of two tracts about 100 square miles in extent. The head-waters of the Yenwè stream in the Shwegyin division were examined by the Divisional Officer, and his report, proposing two areas aggregating 200 square miles, forwarded to the Commissioner of the division.

Examination of Pyu and Kun forests.

15. Mr. Pickard was deputed to examine the Pyu and Kun forests in the Toungoo division; unfortunately, within a month after his return from sick leave, he was again attacked with jungle fever and had to be sent to Rangoon before he had completed any work.

Progress of reservation and proposals to end of year.

16. The progress of reservation during the year and the state of further proposals will be clearly seen from the following :—

Division.	Name of reserve.	Sanctioned during year.	Preliminarily notified and disposed of by Settlement Officer, &c.	Preliminarily notified, but awaiting settlement.	Reported on, but not yet fully notified.	Proposed as village forests.	Remarks.
		Square miles.					
Rangoon	South Zamayi (extension) ...	...	...	2	...	...	
	Shwelaung	...	...	...	70	...	
	Kodugwè	...	...	...	...	...	
	Pyinma	...	...	...	80	...	
	Thawuntakwin	...	...	...	...	74	
	Tract on seacoast, Syriam ...	...	...	...	...	88·5	
Toungoo	Lônyan	17	...	...	...	...	
	Sabyin	41	...	...	...	...	
	West Swa	60	...	...	...	...	
	Gwethe	52·44	...	...	...	...	
	Kanni		...	...	...	...	
	Gônwe	10	...	...	...	...	
	Thandaung	18·79	...	...	...	...	
	Myohla	...	25	...	...	...	
	Chaungmauge and Pabè	...	20	...	...	...	
Shwegyin	Kyôntaung	6	...	...	...	...	
	Upper Kanyinmyaung	...	10	...	...	...	
	Tônkan	...	35	...	...	...	
	Lower Kanyinmyaung	...	35	...	...	...	
	Yenwè	...	...	...	100	...	
	Pen Chaung	...	...	...	100	...	
Western ...	Myauaung Yoma	...	...	...	637	...	Reported on in 1883-84.
	Total ...	205·28	125	2	987	157·5	

2.—*Boundaries.*

Final demarcation in Prome and Tharrawaddy.

17. The final demarcation of sanctioned reserves in the Prome and Tharrawaddy divisions was completed last year.

Reserves in the Rangoon division all finally demarcated.

18. In the Rangoon division completion was effected this year. The Paunglin reserve, with a boundary aggregating about 120 miles in length, was demarcated with 1,290 boards, and the Letpan reserve boundary line, 40 miles long, demarcated with 400 boards. The total cost of demarcation of these two reserves amounts to Rs. 548-2-11, or Rs. 3-6-9 per mile of boundary. In the Upper Zamayi reserve the demarcation of Karen areas has been completed at the following cost :—

		Approximate length of boundary line in miles.	Number of boards erected.		Cost. Rs.	A.	P.
Karen area	No. 1 ...	20	181	1883-84 =	416	18	4
	" 2 ...	50	440				
	" 3 ...	20	190	1884-85 =	245	2	2
	" 4 ...	10	90				
	" 5 ...	70	670	1885-86 =	123	4	8
	Total ...	170	1,571		785	4	2

Toungoo division final demarcation nearly completed.

19. The demarcation of all reserves in the Toungoo division, with the exception of Thandaung, sanctioned 31st March 1885, is reported complete. The following table gives all details :—

Name of reserve.	Number of earth mounds erected.	Number of boards nailed up.	Length of boundary in miles.	Cost.	Remarks.
				Rs. A. P.	
Gwethe	68	156	95	810 0 0	Probably a few additional boards will be necessary.
Gônwe...	14	136	17	73 6 0	
West Swa	51	109	...	...	Not reported; will be shown next year.
Sabyin	17	25	...	...	
Lônyan	84	58	...	...	
Kanni	16	70	4·8	95 14 0	

Reserves in Shwegyin division all demarcated.

20. All reserves in the Shwegyin division are demarcated. The 10 miles reported last year as still to be demarcated have been completed and 31 pyingado posts, 10 feet high to which iron tablets with running numbers have been affixed, put up. The Kyôntaung reserve boundary, about 14½ miles in length, has been marked out with 85 boundary boards and eight posts; on the southern and eastern sides the jungle for about three miles in length has been cleared to a width of six feet. The cost was Rs. 87, or Rs. 6 per mile.

Boundary repairs.

21. In the different divisions attention has been paid to the renewal of boundary marks, repairs to mounds, &c., and reblazing of trees along the boundary lines. In the Rangoon division, particularly near the railway, as the boundaries were difficult to follow and as encroachments were of constant occurrence, sanction was given to the renewal of the boundaries of all reserves in the Hlaing subdivision, to the erection of mounds and hard-wood poles, and to the clearing of a 10-feet path along the outer boundaries of the blocks. The following are the details received up to date :—

Reserve.	Running feet cleared 10 feet broad and freed of all vegetation.	Four-feet mounds and 6-feet pyingado posts bearing boundary boards.	Cost.
			Rs. A. P.
Thitpyat—			
Portion east of railway	31,861	48	260 15 3
Portion west of railway	84,520	57	374 15 0
Kyôngyaung	16,230	...	90 3 1
Thabyu	5,470	14	106 13 0
Total ...	138,081	119	832 14 4

The cost is heavy, but the work is done in a thorough manner, the soil being cleared of all vegetation and every tree along the line being prepared with a large blaze for the reception of a hammer-mark on revision of work by Divisional Officer. The lines also acted as fire-traces, although no portion of the expenditure was placed under that heading.

At Kyetpyugan the survey line was cleared and at each survey pipe an earthen mound, with pyingado post and boundary board, was erected. The cost was Rs. 142, or Rs. 3-6-0 per mound.

CHAPTER II.

1.—*Surveys.*

22. The following report of the operations of No. 7 Party, Topographical Survey, during the field season, has been furnished by Mr. Hörst, Deputy Superintendent in charge.

Detail Survey.

1 Deputy Superintendent.
5 Assistant Surveyors.
15 Sub-Surveyors for Detail Survey.
8 Sub-Surveyors for Traverse Survey.
2 Sub-Surveyors as computers.

"The party, of strength as per margin, took the field in the beginning of December, and the Detail Survey camp was dispersed over an area of about 150 square miles between the Minhla and Thayet chaungs, having the Yoma as the eastern limit and the boundary of the Cadastral Survey the western. Later in the season the operations extended across the Yoma up to the meridian of 96° and northwards to latitude 18° 33′ 45″ taking in part of Toungoo valley.

Traverse Survey and Triangulation.

"3. The Traverse Survey camp worked north of latitude 18° 33′ 45″ up to the boundary of the Tharrawaddy forest division, having the meridian of 96° as the eastern and the Cadastral Survey the western limit. Part of this tract was triangulated during the season under report, and the triangulation extended northwards beyond the boundary of the Traverse Survey about 140 square miles. In addition to this the Shwedaung Hill Tract, embracing about 100 square miles, was triangulated and traversed, and part of it surveyed in detail on the scale of 4 inches=1 mile.

Outturn.

"4. The following programme was drawn up for the season's operations :—

		Sq. miles.
Detail Survey	4-inch scale	300
	2-inch scale	50
Traverse Survey		400
Triangulation		500

The outturn is—

Detail Survey	4-inch scale	315·47
	2-inch scale	36·77
Traverse Survey		506·00
Triangulation		814·00
Overlap into	4-inch work	8·16
	2-inch work	7·53

"Although the overlap is work actually completed, yet it does not constitute area surveyed, nor is it included in the cost rates.

"The party is now properly organized and the season's outturn exceeds that of the two previous seasons combined. The maximun has now been attained and it will hardly be possible to exceed it, unless the ground is easier and the health of the party better.

"The field season closed on the 21st May, and the party moved into recess quarters and opened office on the 27th idem, the interval being devoted to miscellaneous duties and sending the Native establishment to India.

Standard sheets.

"5. The topography of 16 standard sheets, nine of which are full maps, has to be drawn during the recess, and the whole will probably be completed, but the publication rests with the Photo-zinco-graphic Office. The proofs of the maps submitted last year have only just been received.

Reserves completed.

"6. The following reserves have been completely surveyed: Minhla, Gamôn, Taung, Bawbin, Mimbu, Upper and Lower Payagyi, and portions of the Taungnyo, Upper Zamayi, and Kunchaung (assumed name not demarcated). The two last named lie along the eastern slope of the Yoma in the Toungoo district.

Description of country.

"7. A correct description of the contry is not easy till the maps are compiled, but a general outline will suffice for a preliminary report.

Hills.

"8. The Yoma runs right through the area surveyed from south to north. The western slope of this range is very precipitous and difficult along a belt of about four miles in width, and the features are very minute. As one proceeds westwards towards the plains the elevation becomes less and the hills are more accessible, but the features become minuter and represent a mass of broken ground, in which it is not easy to distinguish the watersheds from the spurs, and without a guide much time is wasted. The eastern slope is easier and the features larger, which would expedite the work were it not for the dense evergreen forest and impenetrable canebrakes, which present serious obstacles to progress.

Chaungs.

"9. The principal chaungs are the Minhla, Gamôn, Taung, Bawbin, and Taungnyo, from which the reserves are named and which take their rise on the Yoma, flowing in a south-west direction into the plains.

"10. Four large Karen areas came under survey on the western side of the Yoma and a portion of one to the east. As has been explained before, there is greater labour in surveying the Karen areas in consequence of their being densely overgrown with scrub, bamboo, and kaing grass than the reserved forests, which are more open. In these Karen areas there are 15 tès, with an average of 20 men to each, besides women and children ; but, besides serving as guides after much persuasion, they are averse to rendering any assistance.

Karen areas.

"11. The following are the principal pathways practicable to laden elephants :—

Pathways.

"*Seyua to Ngato tè.*—Seyua to North Minhla chaung, along chaung for a considerable distance to within a mile of the Yoma, to summit of ridge, then along ridge southwards for a mile down Pyemezili chaung, and thence to Ngato tè. Path good; three marches.

"*Bawbin to Zamayi chaung.*—Bawbin to Tônthe, thence to Thayet chaung, along Thayet chaung to junction with Kyin chaung, thence up the hill, crossing the Yoma south of Sanamonton, down part of Pônna chaung, along watershed Kadin and Linthet chaungs till it reaches the Zamayi or Pegu river; four marches. Path very good, known as the Kywelan, by which cattle from the Shwegyin and Toungoo districts are always brought.

"*Bawbin to Kyaukpyu tè.*—Follows the Bawbin chaung for about three-fourths of a mile, then ascends the ridge and keeps to it for several miles, crosses the Kyaukpyu chaung, goes along easy country till the Kyaukpyu chaung is crossed again, after which it keeps to the ridge up to Kyaukpyu tè. Distance about 15 miles. In parts trying for elephants, but good on the whole. Too long for a single march in hot weather.

"*Waing (west of Yoma) to Pan tè (east of Yoma) viâ Kyaukchaung tè.*—After leaving Waing follows course of Gamôn chaung for about six miles, when it leaves the stream owing to the bed being full of boulders, but re-enters further up, and follows the chaung till about half-a-mile from the Yoma, where it leaves the stream and ascends the hill at an easy gradient, crosses the ridge, and descends gradually to Pan tè. Distance three marches.

"*From Bawbin viâ Tônthe and Kyaukpyu on west of Yoma to Ônpôn on east of it.*—From Tônthe to Kyaukpyu the path is rough, from Kyaukpyu it follows the course of the Kyaukpyu chaung till within half-a-mile of the Yoma, which it ascends by an easy gradient, attaining an elevation in that distance of 750 feet. To the east of the Yoma the fall is easy up to Ônpôn. Distance Kyaukpyu to Ônpôn 16 miles, from Bawbin to Ônpôn whole distance three marches.

"12. The greatest difficulty to contend against is want of water, which becomes so scarce in April and May that it is often a question whether it will be possible to complete certain tracts, the omission of which would leave some maps unfinished. The evil has to be overcome; but the supply is obtained from long distances, which entails loss of time.

Scarcity of water.

"13. There were 12 elephants attached to the party, but only nine were serviceable, and at the end of March one died of apoplexy, leaving only eight animals at a time when the greatest strain is put upon them. For next season 14 elephants will be required, and this number will be arranged for by transfers from Nos. 2 and 8 Revenue Parties; but for the following season, in consequence of the source of supply being further from the locality of survey, it will be necessary to have 18 animals, otherwise proper supervision cannot be exercised over the sub-surveyors.

Elephants.

"14. With one exception the European assistants enjoyed good health, two sub-surveyors were sent away to India on medical certificate, and two apprentices were permitted to resign after serving about two months on account of their health breaking down. A few suffered from fever and general debility. The menial establishment had wonderfully good health. Out of 560 khalasis and chuprasis there were 397 admissions to hospital during the field season and only three deaths. One mahout met with a fatal accident."

Health of the party.

23. It is estimated the total expenditure for the year will amount to Rs. 1,05,000 and the cost of the survey of the 315·25 square miles on the 4-inch scale will be about Rs. 320 per square mile, the same as last year, and the cost of the 36·75 miles surveyed upon the 2-inch scale will amount to about Rs. 135 per square mile. The average cost of survey per completed mile will be a little more than Rs. 298, or Rs. 21 cheaper than in the previous year.

Cost of surveys.

2.—*Working Plans.*

24. Charge of the Working Plans division was assumed by Mr. Aplin, Deputy Conservator of Forests, on the 6th December 1884. Mr. Hoghton, Assistant Conservator of Forests, reported his arrival in Rangoon on the 5th January 1885 and was at once posted

Controlling establishment.

to the Working Plans division, which he joined on the 13th January 1885. Mr. Buchanan, appointed to be a probationary Sub-Assistant Conservator of Forests from the 5th December 1884, was also attached to the Working Plans division, having joined on the 14th January 1885.

Duration of field work.

25. Work was commenced in the forest on the 15th December 1884 and brought to a close, and the enumerating establishment dismissed, on the 24th April.

Forests in which data have been collected.

26. The forests over which work has extended and for the formation of working plans for which data have been collected during the present season have been as follows :—

(i) *Kôn-Bilin reserve*, with an area of 15,988 acres, or 24 square miles, 628 acres.

(ii) *Kadin-Bilin reserve*, with an area of 51,192 acres, or 79 square miles, 632 acres.

(iii) *Môkka reserve*, with an area of 24,668 acres, or 38 square miles, 348 acres.

(iv) A portion of the *Minhla reserve*, containing an area of 7,227 acres, or 11 square miles, 187 acres.

Portions previously examined by Mr. Oliver and actual work of the year under review.

27. In the case of the Kadin-Bilin and of the Môkka reserves data for portions of these had already been collected by Mr. Oliver during the season 1882-83. The area thus examined by Mr. Oliver was 26 square miles, 270 acres. To give the area actually operated on during the year it will then be necessary to deduct this area from the figures above given. The total mileage done during the season will then stand as follows :—

	Sq. miles.	Acres.
Kôn-Bilin reserve	24	628
Kadin-Bilin reserve...	79	632
Môkka reserve	38	348
Portion of Minhla reserve	11	187
Total ...	154	515
Deduct portion already examined by Mr. Oliver ...	26	270
Work of year ...	128	245

Method employed.

28. The method followed for the valuation of the forest was the same as that employed for the Thônzè. Well-defined plots, the areas of which could be calculated from the map, were selected and the trees on them counted out. The sample areas represented different varieties of soil, situation, and forest.

Kôn-Bilin Reserve.

Classification of Kôn-Bilin reserve.

29. The Kôn-Bilin forest may be roughly classified as follows :—

	Acres.
Evergreen and moist forest without teak	3,200
Taungya teak plantations	295
Teak forest	12,493
Total ...	15,988

This reserve has been divided into 34 compartments of an average area of 470 acres.

Areas counted out and totals obtained.

30. The area which has been counted out in natural teak forest in the Kôn-Bilin reserve has been 2,764 acres. The total of the sound teak trees counted over this area has been :—

Marketable teak trees about 2 feet diameter	1,959
From 1½ to 2 feet diameter	2,147
From 1 to 1½ feet diameter	5,775
Below 1 foot diameter, dominant	14,157
Below 1 foot diameter, suppressed	8,720

Rough estimate of actual growing stock.

31. From the figures here obtained a very rough estimate can be made of the amount of teak in the forest. The 2,764 acres were counted in 48 plots in different parts of the forest. Although at the date of writing this report the figures have not been applied carefully, compartment by compartment, it is probable that the final result arrived at will not differ much from the following estimate, which is given in round numbers :—

Marketable teak trees above 2 feet diameter	8,000
From 1½ to 2 feet diameter	9,000
From 1 to 1½ feet diameter	26,000
Below 1 foot diameter, dominant	63,000
Below 1 foot diameter, suppressed	39,000

Pressler's gauge-readings in Kôn-Bilin reserve.

32. The rate of growth of 70 dominant teak trees of different diameters was tested by means of Pressler's growth-gauge. All the trees were bored on two or three sides, except in the case of trees of very small girth. The following is an abstract of the borings :—

Number of trees bored.	Number of borings.	Diameter of trees.	Annual radius increase.
21	41	Twelve inches and below in diameter	0·121
21	43	Above 12 inches and up to 18 inches in diameter	0·097
20	50	Above 18 inches and up to 24 inches in diameter	0·078
8	18	Above 24 inches in diameter	0·069

Age of trees of different diameter classes.

33. The age of trees of different diameters would, therefore, be on an average as follows in the Kôn-Bilin reserve :—

	Years.
Trees 12 inches in diameter	50
Trees 18 inches in diameter	81
Trees 24 inches in diameter	119
Trees 30 inches in diameter	168

Comparison with the Thônzè figures of Mr. Oliver.

34. As one revolution will have to be adopted for this reserve, it has not been thought necessary to discriminate between borings made in moist forest and those made in dry forest, particularly as these merge gradually one into the other. If the figures (bearing this in mind) be compared with those found by Mr. Oliver for the Thônzè forest, they are seen to be almost identical, as was to be expected in forests which border each other and appear to be very similarly constituted as regards soil, kind of forest, and climate.

Fire-traced area in Kôn-Bilin.

35. The area of the forest included within the fire-trace in this reserve was found by actual measurement to be 958 acres.

Kadin-Bilin Reserve.

Classification of Kadin-Bilin reserve.

36. The Kadin-Bilin reserve may be roughly classified as follows :—

	Acres.
Pônzo or other unproductive forest in the Karen area ...	10,941
Teak plantations and taungya teak plantations	376
Teak forest	39,875
Total ...	51,192

Division into blocks and compartments.

37. This reserve divides itself naturally into six well-defined blocks, which have again been divided into compartments as follows :—

	Acres.	Compartments.
North Bilin block	7,326	with 17
Hmya chaung block	6,646	with 15
Karen area block	14,233	with 8
Taung chaung block	7,509	with 15
Kyauktaga chaung block	7,214	with 15
Myauk chaung block	8,264	with 16
Total ...	51,192	with 86

Areas counted out and totals obtained.

38. The area which has been counted out in this reserve is 8,338 acres. The total of the sound teak trees on this area is as follows :—

Marketable teak trees about 2 feet diameter	9,152
From 1½ to 2 feet diameter	9,947
From 1 to 1½ feet diameter	17,879
Below 1 foot diameter, dominant and suppressed	49,883

Rough estimate of actual growing stock.

39. The following is a rough estimate in round numbers of the growing stock at present in this reserve. This estimate, being formed on the supposition that the average of the whole area counted may be applied to the whole area of the teak forest, will vary somewhat from the estimate which will be obtained when the figures for the different countings are applied compartment by compartment :—

Marketable teak trees above 2 feet diameter	43,000
From 1½ to 2 feet diameter	46,000
From 1 to 1½ feet diameter	84,000
Below 1 foot diameter	234,000

Deductions on account of inaccessibility.

40. These figures are very large considering the size of the reserve, but will be considerably reduced, as deduction must be made for inaccessible areas.

Pressler's gauge-readings in Kadin-Bilin reserve.

41. The rate of growth of 268 dominant teak trees of different diameters was tested by means of Pressler's growth-gauge. The following is an abstract of the borings :—

Number of trees bored.	Number of borings.	Diameter of trees.	Annual radius increase.
61	89	Twelve inches and below in diameter	0·115
94	150	Above 12 inches and up to 18 inches in diameter	0·109
77	148	Above 18 inches and up to 24 inches in diameter	0·081
36	79	Above 24 inches in diameter	0·063

Age of trees of different diameter classes.

42. The ages of trees of different diameters would, therefore, be on an average—

	Years.
Trees of 12 inches diameter	52
Trees of 18 inches diameter	80
Trees of 24 inches diameter	117
Trees of 30 inches diameter	165

Comparison with Kôn-Bilin.

43. These results are very similar to those which have been obtained for the Kôn-Bilin reserve.

Môkka Reserve.

The Môkka reserve, including its Karen area, is all more or less stocked with teak.

44. Although the Môkka reserve contains a Karen area 6,585 acres in extent, this tract is more or less stocked with teak. There are two Karen villages situated within the Karen area, but all the villagers have been employed on taungya *teak* cultivation outside its limits since the formation of the reserve. As a consequence of this there is no large area which can be excluded from the working plan. There is not one of the 52 com-

partments into which the reserve has been divided which does not contain more or less teak. There are 971 acres of *taungya* teak plantation.

Areas counted out and totals obtained.

45. The total number of sound teak trees counted over an area of 4,351 acres is—

Marketable teak trees above 2 feet diameter	2,291
From 1½ to 2 feet diameter...	2,830
From 1 to 1½ feet diameter	5,419
Below 1 foot diameter, dominant and suppressed ...	17,100

Rough estimate of actual growing stock.

46. Applying these figures in the same way as for the last two reserves, the following is a rough estimate of the growing stock at present in this reserve :—

Marketable teak trees above 2 feet diameter	12,000
From 1½ to 2 feet diameter	15,000
From 1 to 1½ feet diameter	29,000
Below 1 foot diameter, dominant and suppressed ...	92,000

Pressler's gauge-readings in Môkka reserve.

47. The rate of growth of 110 trees was tested by means of Pressler's growth-gauge. The following is an abstract of the borings :—

Number of trees bored.	Number of borings.	Diameter of trees.	Annual radius increase.
20	30	Twelve inches and below in diameter	0·119
43	56	Above 12 inches and up to 18 inches in diameter	0·129
36	51	Above 18 inches and up to 24 inches in diameter	0·103
11	20	Above 24 inches in diameter	0·135

Ages of different diameter classes.

48. The ages of trees of different diameters would, therefore, be on an average—

	Years.
Trees of 12 inches diameter	50
Trees of 18 inches diameter	73
Trees of 24 inches diameter	102
Trees of 30 inches diameter	124

These figures show that the growth of trees in the Môkka reserve is on an average more rapid than in the Kôn-Bilin or Kadin-Bilin reserves.

Minhla Reserve.

Only a small portion of Minhla reserve examined. Areas counted and totals obtained.

49. As the map of only a small portion in the south-west part of this reserve was available, data for a working plan could only be collected over the area which had been mapped. The part examined is 7,227 acres, or an area of 11 square miles, 187 acres. This has been divided into 12 compartments and countings made in 22 sample areas having a total area of 2,373 acres. The sound teak timber counted on these areas has been as follows :—

Marketable teak trees above 2 feet diameter	577
From 1½ to 2 feet diameter	710
From 1 to 1½ feet diameter	1,140
Below 1 foot diameter, dominant and suppressed ...	4,256

No complete working plan can be made for the Minhla reserve until the whole has been examined. All the data which have been obtained this year will be made use of for the next season's work.

Expenditure incurred in season's work.

50. The expenditure of the Working Plans division up to date (18th June) has been as follows :—

Head of service.	Amount. Rs.	A.	P.
AI*a*	80	0	0
AVI*b*	718	4	10
AVI*c*	74	8	0
AVIII*a*	291	0	0
AVIII*c*	5,781	10	9
BI*b*	6,251	9	9
BII*b*	2,221	4	0
BIII*f*	8	0	0
Total ...	15,421	5	4

It is expected that the work will be completed by the end of July 1885. The following additional expenditure, not yet charged, must therefore be added to cover the whole cost of the work of the season :—

	Rs.	A.	P.
Pay of Deputy Conservator and Assistant Conservator for two months	1,800	0	0
Pay of draughtsman, interpreter, and peons for three months	360	0	0
Total ...	2,160	0	0

The total, Rs. 17,581-5-4, divided by the number of square miles completed during the year (namely, 128⅝) gives Rs. 137 per square mile, or Rs. 5 less per square mile than the cost of the working plans of the Thônzè forest.

Health of establishment.

51. The health of the establishment was on the whole very good, a few cases of fever only occurring at the commencement and towards the close of the work.

General remarks.

52. Mr. Oliver stated in his report for the previous year that it should be possible in future to reduce the cost of working plans to Rs. 70 or Rs. 80 per square mile. During the season under review no more work could be done as no maps were available. The percentage of teak forest counted out was, moreover, very large in comparison with that counted out by Mr. Oliver. The fact that an Assistant Conservator and Sub-Assistant Conservator were on the establishment of the Working Plans division also caused a considerable increase in the cost of control under the heads of pay and travelling allowance. In two cases delays were caused owing to serious errors in the map, which necessitated a re-survey of the parts in which the error had been made.

3.—*Annual Plan of Operations.*

Annual plan of operations.

53. The annual plan of operations sent in by Divisional Officers with the budget estimate has been fairly worked up to, as will be seen from the following notes :—

PROME DIVISION.

Proposed plan.	*How far carried out.*
a. Extraction of 3,500 teak logs.	Three thousand four hundred and ninety-four delivered.
b. Girdling of 2,000 trees.	Carried out.
c. Renewal of boundary marks, &c., round reserves.	Mindôn reserve boundary marks being repaired at close of year; Prome plantation demarcated; western boundary of Thayetmyo East Yoma repaired.
d. Taungya plantations to extent of 200 acres.	Two hundred and six acres planted.
e. Weeding of taungya-plantations of previous year.	All weeded.
f. Fire-protection of Chaungzauk reserve and Prome plantation.	Carried out.

THARRAWADDY DIVISION.

a. Extraction of 12,000 teak logs.	Eighteen thousand three hundred and thirty-nine delivered.

Proposed plan.	*How far carried out.*
b. Extraction of 5,000 refuse teak.	Three thousand eight hundred and eleven brought to depôt.
c. Girdling 5,100 teak trees outside reserve.	Four thousand eight hundred and forty girdled.
d. Girdling 200 teak trees in reserves.	Two hundred girdled in Môkka and 1,000 in Thônzè reserves.
e. General repairs to boundaries of reserves.	Tarôkmaw and Sitkwin boundaries repaired and the trees along boundary line of all reserves re-blazed.
f. Clearing of floating streams.	Shwele, Taungnyo, Bawbin, and Bilin streams cleared.
g. Six hundred acres taungya plantations.	One thousand and ninety-four acres planted up.
h. Weeding of plantations of 1882 and 1883.	Carried out.
i. Sowing teak seed over 200 acres of flowered bamboos.	Carried out.
j. Erection of a rest-house.	Not carried out.
k. Fire-tracing and protection of reserves as in former years.	Carried out. Protection only partially successful.
RANGOON DIVISION.	
a. Extraction of 4,125 teak and other logs.	Four thousand nine hundred and fifty-nine teak logs and 71 pyinma delivered.
b. Delivery of 100,000 pyingado sleepers.	Eighty-one thousand nine hundred and ninety sleepers sent to Calcutta.
c. Girdling 700 teak trees outside reserves.	Eight hundred and seventy-five trees girdled.
d. Girdling inside Zamayi reserve.	Five hundred and twenty-five trees girdled.
e. Blasting operations in feeders of the Pegu river.	Carried out; work done in the Pyinma, Hnetpyin, and Bamalaik streams.
f. Demarcation of sanctioned reserves.	Completed.
g. Renewal of marks, &c., of reserves in the Hlaing range.	Ten-feet path cleared, marks renewed, and mounds and posts put up 220 yards apart along outer line of these reserves.
h. Completion of metalling of Kimpadi road.	Partially carried out; 203 heaps of metal collected; spreading going on at close of year.
i. Fire-tracing as in former years.	Carried out.
j. Formation of 100 acres plantations at Magayi and Kyetpyugan. Weeding and cutting of creepers.	Twenty-eight-and-a-half acres planted in Magayi and 30 acres at Kyetpyugan. Weeding carried out and creepers cut.
k. Formation of 75 acres of teak taungya plantations in South Zamayi reserve and weeding of former years.	Seventy-three acres partially planted up; old areas twice weeded.
TOUNGOO DIVISION.	
a. Extraction of 9,750 teak and 200 other kinds of logs.	Seven thousand five hundred and twenty teak logs and 156 other kinds extracted.
b. Girdling of 4,500 teak trees outside reserves.	Six thousand trees girdled.
c. Girdling of 1,000 pyinma and 1,000 other kinds of woods.	One thousand pyinma girdled and 395 trees of other species.
d. Completion of Forest office and bungalow.	Carried out.
e. Demarcation of sanctioned reserves.	Completed, with the exception of the Thandaung reserve, only gazetted at the end of the year.

Proposed plan.	*How for carried out.*
f. Teak taungyas in the Swa, Yanè, Bóndaung, Kabaung, and Pyunchaung reserves.	Carried out.
g. Sowing teak seed in reserves in places where bamboos had flowered.	Could not be carried out.
h. Fire-protection as in former years.	Carried out.
i. Clearing floating streams.	Saing and Yanè streams cleared.
SHWEGYIN DIVISION.	
a. Extraction of 800 trees of teak timber.	Five hundred and eighteen brought out.
b. Girdling of 500 kanyin and 500 pyinma trees.	Carried out.
c. Completion of demarcation of sanctioned reserves.	Carried out.
d. Repairs to forest bungalow.	Carried out.
e. Examination of Yenwè forests with a view to reservation.	Carried out and proposals submitted for two reserves.
f. Collection of drift timber.	Carried out.
WESTERN DIVISION.	
a. Extraction of dead and fallen teak trees from forests.	Carried out; 587 logs extracted: in addition a quantity of pyingado for conversion into sleepers was extracted.
b. Extraction of other woods.	Four hundred and thirteen logs of various kinds brought out.
c. Delivery of 500 telegraph posts.	Completed.
d. Collection of drift timber.	Carried out.
e. Examination of forests with a view to reservation.	Proposals for 600 square miles sent in; further examination undertaken at the close of the year.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

1.—Establishment.

Cost of establishments.

54. During the year no increase has been made to the permanent sanctioned establishment. The total cost was Rs. 73,687.

The amount expended upon temporary establishments, excluding keep of elephants, was Rs. 24,067.

Expenditure upon establishments in each division.

55. The expenditure division by division is shown in the following:—

Division.	Sanctioned permanent establishment.	Sanctioned temporary establishment.	Actual cost of permanent establishment.	Actual cost of temporary establishment.
	Rs.	Rs.	Rs.	Rs.
Prome	8,817	8,408	7,084	2,597
Tharrawaddy	16,638	7,500	14,752	5,652
Rangoon	10,950	5,748	9,208	4,150
Toungoo	9,778	4,272	7,189	2,491
Shwegyin	5,157	2,592	4,878	1,448
Western	5,172	2,784	4,646	2,885
Agency	27,210	18,636	26,530	12,307
Total ...	83,722	39,940	73,687	31,530

2.—*General Protection and Breaches of the Forest Law.*

Summary of prosecutions.

56. The number of prosecutions disposed of during the year amounted to 116, implicating 355 persons. Of these 101 were successful and 311 men were punished. At the close of the year one case was still pending. The number of prosecutions is nearly the same as in the previous year, although more individuals have been implicated. Considering the area under forest, the number of offences cannot be considered large.

Encroachment upon Zamayi reserve.

57. One case of encroachment upon the reserves by Karens was discovered by the Rangoon Divisional Officer. At Aungban tè, Upper Zamayi reserve, about 50 acres were cleared for taungya in the Government reserved portion of the forest. By way of compromise, an arrangement has been entered into with Aungban for the planting up of this area during next rains with teak. Government has supplied the seed, but the Karens who cleared the ground have to plant and weed for the one season without payment. Of course they have been permitted to plant paddy and their usual vegetables.

Details of prosecutions in the Prome division.

58. Seven men were prosecuted for illicitly felling cutch trees inside reserves; three of them were fined Rs. 55 and four men discharged. In the one case against three men, although their huts were found close to the place where the trees had been felled, and there was a dragging-path which had been lately used, they were discharged upon their plea that not they, but one man, who had bolted, was the culprit.

In unreserved forests there were five cases of cutch-boiling without a license and convictions were obtained in every instance. One case against four men for felling undersized cutch trees resulted in the conviction of three, who were fined Rs. 10 each. There were 26 cases of illicit felling or using teak, in which 110 men were implicated. Convictions were obtained in 25 of these cases against 107 men, and fines, amounting to Rs. 1,241-8-0, inflicted. There were eight cases implicating 39 persons of felling unreserved trees without a license, and seven cases against 38 persons were successful. The average fine inflicted was Rs. 10 in addition to the value of the wood.

Detail for the Tharrawaddy division.

59. Thirteen men were prosecuted for the theft of 100 cutch trees from the Gwedaukkwin, Nyanlè, and Taungnyo reserves, two were acquitted, and the other 11 were fined Rs. 607. Twenty-five men were prosecuted for the theft of In trees from the Tarôkmaw reserve, two were acquitted, and 23 were fined Rs. 527. Seven men were fined Rs. 69 for cutting yas in the Gwedaukkwin reserve without authority. Four men were fined Rs. 8 for the illicit removal of honey from the Thindawyo reserve. Six men were fined Rs. 60 for lighting a fire in the Thônzè reserve. There is little doubt that these men purposely set the fire-traced area on fire on the 28th April 1884, but this of course could not be proved. Two men were fined Rs. 80 for illicitly felling teak outside reserves. Two men were acquitted on a similar charge, and one man, charged with stealing 110 trees, was sentenced to one year's imprisonment, but released on appeal to the Sessions Judge. Seven men were fined Rs. 256 for injury done to teak trees. Three men were fined Rs. 120 for boiling cutch without a license. Four men were prosecuted for boiling cutch with forged licenses. It turned out that these were ignorant men, who had deputed a cutch broker to get their licenses for them. He, instead of getting a license for five cauldrons, got one for two and altered it himself to five. The case was therefore dismissed, but in the meantime the broker had absconded. Two men were fined Rs. 95 for felling unreserved wood for sale without a license. Six men were fined Rs. 120 for causing an obstruction in the Satpôk stream.

Detail for the Rangoon division.

60. Under the Indian Penal Code Maung So, who in 1880 absconded with over Rs. 2,000 revenue from Tawlatè, was sentenced to four years' rigorous imprisonment, and Pôngyi U Pande, of Thilawayua, was sentenced to six months' rigorous imprisonment for the

theft of 14 logs of drift timber belonging to the Bombay Burma Trading Corporation, Limited. The nature of the cases instituted during the year was as follows :—

(*a*) *In reserved forests.*—One case involved 12 thitgaungs and nine coolies, who cut 136 In trees within the Kyôngyaung fuel reserve while holding permits for felling outside of reserves. Through some irregularities in the boundary boards, survey pillars, and blaze-marks, the Assistant Commissioner, Insein, acquitted 12 men, fined one Rs. 100, three Rs. 50 each, and five Rs. 10 each (total Rs. 300), while the whole of the timber was confiscated and placed at the disposal of the Forest Department.

(*b*) *In unreserved forests.—Cutting reserved trees.*—Two cases of cutting pyinma were tried, in which the accused were each fined Rs. 10 or 15 days' imprisonment. In another case the accused was fined Rs. 7, twice the value of the small kanyin tree cut. Again, an accused was fined Rs. 16, or twice the value of one kaungmhu extracted. The most serious case of this nature was in regard to 20 tons of kanyin timber cut in the Pyinbôngyi forests, Pegu district, under a prepaid license V, held for 10 tons only; this case is still pending.

Detail for the Toungoo division.

61. Nine bamboo traders were prosecuted for cutting bamboos without a permit inside the Kabaung reserve and fined Rs. 8 each. The case pending from last year for breach of Rule 17 was decided and all the offenders punished. Three men were fined Rs. 25 and three men Rs. 15 each.

Detail for the Shwegyin division.

62. An individual named Charles Campbell was sentenced to five years' rigorous imprisonment for personating the Divisional Officer. He endeavoured to obtain the forest revenue from the Myitkyo depôt overseer; fortunately there was none. Two cases for cutting unreserved trees without a license were successfully prosecuted and the two offenders fined Rs. 30 and Rs. 15 respectively, the timber being also confiscated.

Detail for the Western division.

63. One case of fraudulently disposing of timber resulted in defendant being fined Rs. 150 in addition to the amount of revenue due upon the timber. One case of girdling teak in taungyas, implicating 14 men, was decided and the men fined Rs. 5 each. In three prosecutions for cutting reserved woods without a license one man was fined Rs. 89 and four others Rs. 50. Fifteen prosecutions for cutting unreserved woods implicating 21 men, were disposed of by the infliction of fines varying from Rs. 2 to Rs. 25.

Cases compounded under section 66 of the Act.

64. Under section 66 of the Act the following breaches of rules were compounded by the Divisional Officers :—

Division.	Number of cases.	Number of men.	Amount realized.	Remarks.
			Rs. A. P.	
Prome	15	26	184 9 0	Not given.
Tharrawaddy	29	150	618 0 0	
Rangoon	7	7	273 8 0	
Toungoo	9	9	86 0 0	
Shwegyin	1	1	4 0 0	
Western	...	...	...	
Total ...	61	193	1,116 1 0	

They were all minor offences, usually cutting unreserved wood without licenses, &c., and the amount accepted as compensation is in no case excessive.

3.—*Forest Fires.*

Result of fire-tracing.

65. With the exception of the Tharrawaddy division, fire-protective measures have been very successful.

Comparison with previous years.

66. Last year it was attempted to protect 104,755 acres, and success was obtained over 102,984 acres. The cost was reduced to one anna eight pies per acre attempted, or one anna nine pies per acre protected.

This year the area has been slightly increased to 105,458 acres, of which 102,638 acres have been successfully protected. The total cost has been Rs. 10,459, or one anna seven pies per acre attempted or protected.

The hot season has been a protracted one and fire-protection thereby rendered much more difficult.

Details for Prome division.

67. Not an acre has been burnt in the Prome division. The expenses of protection of the 75 acres in the Prome plantation have been reduced to Rs. 16-8-0 and 4,185 acres of the Chaungzauk reserve have been protected for Rs. 782. The total cost per acre is only two annas eleven pies against four annas four pies last year.

Tharrawaddy.

68. The work in Tharrawaddy cannot be said to have been successful; 23 fires have occurred in the reserves, spreading over 2,758 acres, of which 568 are plantations.

The following is a summary of the fires and area burnt :—

Date.		Area.	Area of plantation ncluded.	Year of plantation.
	Bwet.			
February 16th	... ...	40	28	1875 and 1876.
March 9th	... ...	7	...	
	Total ...	47	28	
	Nyanle.			
March 28th	... ...	87	7	Sowings of 1881.
April 14th	... ...	44	...	Sowings of 1882.
April 19th	... ...	21	7	
	Total ...	152	14	
	Bawbin.			
March 26th	... ...	5	4	1866.
April 4th	... ...	5	5	1868.
April 5th	... ...	214	63	1866 to 1881.
	Total ...	224	72	
	Kangyi.			
March 4th	... ...	6	...	
March 24th	... ...	18	...	
March 30th	... ...	6	2	1879.
April 5th	... ...	23	5	1869.
May 10th	... ...	70	...	
	Total ...	123	7	
	Minhla Mókka.			
March 21st	... ...	18	8	1873 and 1875.
March 25th	... ...	10	1	1881.
April 16th	... ...	12	12	1880 and 1881.
April 19th	... ...	1	...	
April 20th	... ...	56	18	1873 and 1874.
April 21st	... ...	800	310	1875, 1880, 1881, and 1882.
	Total ...	892	349	
	Mókka-Bilin.			
April 12th	... ...	600	...	
April 14th	... ...	300	89	1873 and 1874.
April 14th	... ...	400	...	
April 15th	... ...	20	9	1880.
	Total ...	1,320	98	
	GRAND TOTAL ...	2,758	568	

Divisional Officer's explanation of origin of fires.

69. Mr. Carter's explanations of the causes of the fires follow:—

"Both fires in Bwet are attributed to incendiarism, as the fire broke out inside the fire-trace. The areas burnt are contiguous and are situated to the east of the cart-road to Gyobinaing, just where it leaves the reserve.

"The first two fires in Nyanle are also attributed to incendiarism, but the fire of the 19th April was blown from a burning ya and not discovered for some time although a forester was present.

"The first fire in Bawbin may have arisen from the carelessness of a traveller throwing away a burning cheroot, as it occurred near the road, but the other two were no doubt maliciously caused. We have never had a fire in this part of the reserve before.

"The first fire in Kangyi was caused by a high wind arising whilst some leaves, &c, were being burnt on the fire-trace. The fire of the 24th March was probably due to incendiarism; that of the 30th is due to the same cause, the forest being set on fire in the night

"The fire of the 5th April spread from a burning ya; that of the 10th May was caused by an incendiary.

"The fire of the 21st March in Minhla Môkka was the result of an accident when burning the fire-trace; on the 25th the fire was blown across the Minhla chaung, which forms the fire-trace. The fire of the 16th April spread from a burning ya; that of the 19th April occurred near the pathway which passes through the reserve, and was probably caused by a burning cheroot having been carelessly thrown away. "The fire of the 20th April spread from a burning ya, and that of the 21st was probably due to the same cause.

"In Mokka-Bilin the origin of the fire of the 12th April is unknown; it arose within the fire-trace on the Bilin side of the forest. The fires of the 14th probably spread from imperfectly extinguished logs in the area of the previous fire, which spread on one side in the direction of Kywemakaing and on the other across the watershed into the Môkka forest. The fire of the 15th April occurred near the source of the Talaingthat chaung and is attributed to the carelessness of some workmen belonging to the Working Plans division.

"A fire was discovered in the Kôn-Bilin, but extinguished before it had time to spread. It arose from the camp-fire of an old Burman and his wife, who lost themselves in the forest when on their way to the pagoda. There was no doubt that the old man's statement was true and that he had no intention of setting the forest on fire, and no prosecution was instituted."

The measures adopted for protection were the same as in former years. It is no doubt difficult, and very often impossible, to trace the origin of a fire, and the natural conclusion, if undiscovered, is to put it down to the act of an incendiary; and the Deputy Conservator ascribes the origin of no less than nine fires to this. The Conservator is not prepared to endorse the explanation, but is more inclined to believe most of these fires have been caused by hunters, trespassers collecting forest produce or tortoises, &c., and are the result of carelessness rather than wilful incendiarism. Fire-protection in the Tharrawaddy division is a very difficult task; it is scattered throughout the division over 11 reserves, in all of which are plantations.

Area and cost.

70. The total area attempted to be protected was 40,093 acres, and 37,335 acres remained unburnt. The total cost was Rs. 5,774, or two annas three pies per acre attempted and two annas five pies per acre protected.

Rangoon division.

71. Of 34,602 acres attempted in the Rangoon division only 62 were burnt. The total cost was Rs. 2,196-14-0, or one anna per protected acre.

In all three fires occurred and the following is a detailed account of each:—

Magayi.—On the evening of the 22nd April a fire was discovered near the cart-track south of the Magayi road. No damage was done to any of the plantations and only 60 acres of the reserve were burnt over.

Kyetpyugan.—On the night of the 24th February two fires broke out almost simultaneously,—one close to the cart-track at the north-west corner of plantation and the other on the main road, about half-a-mile east of the coolie lines. On careful inspection it was found that the fire had not crossed the 10-feet line kept quite bare of inflammable matter, and beyond reasonable doubt it was the work of an incendiary. The total area traversed was only one acre and no permanent damage was done.

It is pleasing to note that the Shans of the two villages near the north-west corner readily gave assistance in extinguishing the fire.

Dawè.—Towards the end of March, through the carelessness of the camp-followers of the Conservator of Forests and the Divisional Officer, several small patches of reserve were set fire to by droppings from torches. They did not spread as far as the teak taungyas and on measurement were found to aggregate only one acre.

Toungoo division.

72. An area, amounting to 26,503 acres in this division, was successfully protected and not a single fire occurred. The expenditure incurred was Rs. 1,689, equal to only one anna per acre.

Area of forests unprotected which annually escape fires.

73. With the exception of about 370 square miles of reserves situated in the Rangoon division, and which are naturally protected by belts of evergreen forests or broad running streams, it may be said as a rule fire traverses all the teak forests in this circle, reserved and unreserved.

4.—Grazing.

Receipts from grazing inside reserves.

74. In all Rs. 225-4-0 were realized for grazing 534 animals in reserves in the Tharrawaddy and Rangoon divisions.

5 and 6.—Reproduction by natural and artificial means.

Natural reproductive measures for teak not advisable.

75. No regular measures have been adopted for the reproduction of teak by natural means, and it is improbable any arrangement unaided artificially would be successful.

Aid given to standing trees while girdling.

76. In conjunction with the girdling work in the Môkka-Bilin reserve, 1,085 trees of other kinds which were suppressing young teak trees were girdled. Works of this nature, if carefully carried out, are of the greatest value, and in the Môkka-Bilin reserve the work, which was inspected by the Conservator and Divisional Officer, reflects great credit upon the forester who performed it.

Regular plantations.

77. An addition of 28½ acres was successfully made to the regular plantations at Magayi in the Rangoon division; the work was carried out by Shan cultivators, and the following tabular statement gives cost, result, &c. :—

Number of cultivators.	Number of teak planted.	Approximate area planted.	Plants per acre.	Delivered at end of December 1884.	Cost.		Remarks.
					Total.	Average per acre.	
		Acres.			Rs. A. P.	Rs. A. P.	
14	34,333	28½	1,210 at 9 ft. × 4 ft.	29,931, or 1,050 per acre.	344 13 6	12 1 7	Area 28½ acres, of which 87 per cent. is stocked with 29,931 teak at 9 ft. × 4 ft. The area is adjacent to and north of 1883 Block I, and is drained by a tributary to the Thèbyu chaung running through it. The development of the plants varies in different parts according to the soil and to the vegetables with which they were planted, but is on the whole very satisfactory.

At Kyetpyugan also a part of the land, about 30 acres, between the regular plantations and the survey line on the west side, was made over to Shan cultivators to be planted up with teak. Later on some of the blanks were filled with thitkado and padauk. Owing to the seed not having been sown until late in the season the plants are very small.

The extent and cost of the operation are exhibited thus:—

Reserve.	Locality.	Yas.	Number of plants alive at end of December 1884.		Cost. Planting.	Cost. Seed, sundry charges.	Total.	Cost per acre planted.
					Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Kyetpyugan	Paunglin range.	26	Teak	22,627	226 4 8	41 2 0	351 12 0	11 11 7
			Padauk	8,624	86 3 10			
			Thitkado ...	4,812	48 1 11			
		26	or 1,085 per acre.	31,063	310 10 0	41 2 0	351 12 0	11 11 7
					Rs. 351-12-0			

78. The area of taungya-plantations again shows a considerable increase. In fire-traced reserves 941·45 acres were planted up with teak; 166 with teak and cutch; and in reserves not fire-traced 342 acres were stocked with teak and cutch, the total acreage being 1,449·15 acres, or an increase of 285 acres upon the previous year.

Area of taungya-plantations again increased.

79. The average number of plants per acre is 738 against 694 last year. It would have been much higher had not the plantations in the Prome and in parts of the Toungoo division suffered very heavily from the rat plague. This was so violent in Bôndaung reserve in Toungoo that the ya-cutters deserted their taungyas and never even attempted to weed or gather the little paddy and other articles of food remaining.

Average number of seedlings.

Remarks about rat plague by Mr. Slade.

80. Regarding the rat plague Mr. Slade writes:

"A few notes about these rats seem not unworthy of report. They were first heard of in the Prome division, about June or July, in the North Nawin Karen area, accompanied by great numbers of jungle fowl. A month or two later the rats and jungle fowl had reached the taungyas of the Chaungzauk reserve, and there not only did they destroy the crops of paddy, &c., but the rats also ate all the teak seed that had been planted out. So much was this the case that several yas were found to be entirely stocked with small teak seedlings which the ya-cutters had rooted up in the jungle and transplanted. In January, when the yas were inspected, the rats together with the jungle fowl had almost disappeared from Chaungzauk, had travelled southwards, and were said to be in great numbers near Sinmizwe. The opinion of the people is that the bamboo flowered during 1883-84 on the Toungoo side of the Yoma and the rats and jungle fowl were attracted to the spot; after the seed was all eaten they started west and arrived, during the rains of 1884, on the west side of the Yoma. It has not been actually ascertained whether the bamboo did flower on the Toungoo side during 1883, but judging from analogy, this theory is likely to be correct. The Burmans say that in 1878 the thaikwa flowered on the Pegu Yoma and there was a regular plague of rats, jungle fowl, and bees; when the seed was all consumed these disappeared southwards. The statement that the jungle fowl arrived from a different part of the country, and were not bred on this side of the Yoma, is supported by the fact that only the ordinary number of young ones were observed in the jungle during 1883. From descriptions given the rat would appear to be a sort of bandicoot and nothing like the bamboo rat (*Rhizomys castaneus*), which has proved so destructive to the cutch plantations in Tharrawaddy."

It is perfectly correct the bamboo flowered and died over very large areas in the Toungoo district near the Yoma.

State of new taungya-plantations in the different divisions.

81. Appendix N gives full details of the various taungya-plantations in each division: a short summary is only given here.

Prome division.

82. In the Prome division, in the Chaungzauk reserve, 40¾ acres were planted with teak at distances of 6 feet × 6 feet. The countings gave an average of 368 plants per acre at a total cost (excluding taxes and collection of seed) of Rs. 148-2-3, or Rs. 3-10-2 per acre.

One hundred and sixty-six acres of teak and cutch, in alternate rows 6 feet × 6 feet, were also planted in this reserve with a result of 489 seedlings at a cost of Rs. 4-14-4 per acre. This result is not so satisfactory as last year. The plants are reported small in consequence of the destruction of the seedlings that came up earliest by rats and fowls.

Tharrawaddy division.

83. In the Tharrawaddy division in fire-traced reserves the teak taungya-plantations extended over 751·7 acres. They were found to contain 847 plants per acre: this is a very high average; last year it amounted to 728.

The cost has necessarily slightly increased and amounted to Rs. 8,540-5-3, or Rs. 11-5-9 per acre. The detail is as follows:—

	Rs.	A.	P.
Survey	51	8	0
Taxes	282	8	0
Seed	1,500	0	0
Carriage of seed	181	6	0
Planting	6,366	15	3
Counting plants	158	0	0
Total ...	8,540	5	3

In reserves which are not fire-protected 342 acres of teak and cutch plantations have been formed; they are well stocked with 814 plants per acre, and the cost was Rs. 3,026-9-5, or Rs. 8-13-7 per acre. The object of these plantations is to ensure the maintenance of the cutch supply and at the same time have a fair quantity of good teak upon the ground to grow up after the removal of the cutch.

During inspection it was discovered that in the Gwedaukkwin reserve no less than 58 teak trees over 3 feet in girth had been felled in the yas. There was no excuse for this wanton destruction, and the cutters were fined, the forester dismissed, and the promotion of the ranger withheld. Prompt and severe measures were necessary. Outside reserves in Tharrawaddy men seldom fell teak in their yas, and it would be absurd to permit them to do so inside.

As an inducement the sale of cutch trees from the reserve, in which plantations are being made, was this year confined to the planters and it has been most successful. The area planted up in Nyanlè is more than four times as large as in any previous year, and a very fair proportion of the trees sold were extracted from it instead of, as in former years, being destroyed when the ya was burnt.

Rangoon division.

84. In the Rangoon division, at Dawè, in the South Zamayi reserve, about 106 acres were cleared, of which 73 only were attempted to be planted up with teak 9 feet by 4 feet apart. The countings at the end of the rains gave an average of 349 plants per acre, and of those many plants were miserably small. The cost, including seed and its conveyance, only came to Rs. 379-0-1, or Rs. 5-3-1 per acre. This result cannot be considered satisfactory, and is attributed to the neglect and disobedience of orders by Probationer Maung Shwe Gôn, in charge of the range.

Toungoo division.

85. Acres 75·7 were planted with teak in five reserves in the Toungoo division by 23 men. Of this it is reported that 21 acres in the Pyunchaung reserve contain under 250 seedlings per acre, and this area has been consequently omitted from Statement 50A. The total number of plants counted was 32,975, or 435 per acre, and the cost, including all charges, Rs. 717, or Rs. 9-7-8 per acre. The average number of plants per acre is less than last year, owing to the destruction by rats.

Departmental sowings in area, &c.

86. In the Tharrawaddy division about 150 acres of flowered bamboo forest in the Pazingyi reserve were sown successfully with cutch and teak at a cost of Rs. 1,563-8-9, or Rs. 10-6-9 per acre, and in Bwet reserve an open glade adjoining the fire-trace and a tract of flowered bamboo, in all about 50 acres, were sown with teak and cutch at a cost of Rs. 600-4-0. The average cost of the work amounts to Rs. 10-13-2 per acre.

7.—*Cutting of Creepers, Weeding, and Thinning.*

Prome plantation cleared of creepers and taungyas weeded.

87. *Prome Division.*—The Prome plantation was cleared of creepers at a cost of Rs. 18, and the yas of 1882 and 1883, 379 acres in extent, were twice weeded at a cost of Rs. 1,017-4-0. Of this sum Rs. 350 were supposed to have been spent by Ranger Maung Shwe Daung; it was afterwards discovered he had not carried out the work and had not really paid away the money. He was prosecuted. Further particulars will be found in paragraph 161 of the report.

Weeding of taungyas in Tharrawaddy division.

88. *Tharrawaddy Division.*—The taungya-plantations of 1882 and 1883 were weeded as shown in the following form:—

			Acres.	Cost.
				Rs. A. P.
Gwedaukkwin,	1883	...	91	120 8 0
Kyaukkyidaung,	1883	...	33	45 8 0
Nyanle,	1882	...	20	50 10 3
Nyanle,	1883	...	18	35 6 6
Gwedauksan,	1882	...	11	27 13 0
Gwedauksan,	1883	...	17	34 3 9
Kangyi,	1882	...	3	8 3 3
Kangyi,	1883	...	44	88 11 9
Minhla-Myaung,	1883	...	28	64 8 6
Minhla-Môkka,	1882	...	122	270 13 6
Minhla-Môkka,	1883	...	213	512 8 6
Môkka-Bilin,	1882	...	233	519 11 6
Môkka-Bilin,	1883	...	245	606 9 0
Thônzè Kôn-Bilin,	1882	...	52	121 1 0
Thônzè Kôn-Bilin,	1883	...	117	232 8 0
		Total ...	1,247	2,738 12 6

The plantation made in 1882 near Kywemakaing was weeded at a cost of Rs. 20.

Sowings of 1882 and 1883 in flowered bamboos weeded and creepers cut in old plantation.

89. The sowings made in 1882 and 1883 in flowered bamboo forest were weeded. The Bwet sowings of 1882 cost Rs. 388-4-0, or Rs. 2-9-5 per acre; those of Nyanlè Rs. 730-6-6, or Rs. 2-14-9 per acre. Of the area taken in hand in 1883, Nyanle cost Rs. 821, or Rs. 2-11-9 per acre; Pazingyi Rs. 589-3-9, or Rs. 4-11-5 per acre; and Kadinzauk Rs. 614-8-0, or Rs. 2-0-9 per acre.

In some of the old plantations in Kôn-Bilin, Môkka-Bilin, and Nyanle soft woods and creepers were cut at an expenditure of Rs. 132-6-0.

The teak trees in compartments 11, 12, and 13 of the Môkka block were freed from creepers by the party engaged in girdling.

Creepers cut at Magayi and Kyetpyugan.

90. *Rangoon Division, Magayi.*—Creepers were cut in the following plantations and at the following cost:—

Plantations.	Acres.	Cost.	Average cost per acre.
		Rs. A. P.	Rs. A. P.
1872 ...	142	22 13 5	0 8 6
1874 ...	206	9 4 7	
1875 ...	150	142 15 7	
1876 ...	302	60 4 9	
1877 ...	273		
Total ...	1,073	235 6 4	0 8 6

The plantations of 1883 were also weeded twice and blanks filled up :—

		Acres.	Cost.	Average cost per acre.
			Rs. A. P.	Rs. A. P.
1883	Block I	30	287 14 11	7 8 2
	Block II	10		
	Total ...	40	287 14 11	7 8 2

Kyetpyugan.—The usual work of cutting creepers, girdling, and cutting out of the jungle woods was continued during the year at a cost of Rs. 303-15-11, or an average of seven annas and one pie per acre.

Dawè Teak.—Taungyas were weeded at a cost of Rs. 87-10-8 (disbursed 1885-86) :—

Year of formation.	Number of acres.	Cost.
		Rs. A. P.
1882-83	30	31 0 0
1883-84	57	56 10 8
Total ...	87	87 10 8

Teak taungya plantations in Toungoo division cleared.

91. *Toungoo Division.*—The teak yas of the two previous years were cleared of overgrowth at a cost of about Rs. 2-4-0 per acre.

8.—*Experiments and Exotics.*

(*a*).—*Experiments.*

Evergreen fire-trace.

92. *Rangoon Division.*—The Magayi evergreen fire-trace charges, amounting to Rs. 75-4-3, were incurred in weeding and filling up blanks. Under the present orders for retrenchment in experiments, no expenditure will be incurred on this work during the current year. Soil and situation are unsuitable for mangoes, and the non-success of the work has now been sufficiently proved.

Height.	Alive in May. 1884.	Alive in May. 1885.	Remarks.
Under 1 foot	Old plants 11,214 planted in 1883 =9,385. (No details as to height were submitted by ranger.)	215	Most are unhealthy and crippled in growth. The vast majority of the seedlings put out last year were choked during the rains.
From 1 foot to 2 feet		4,098	
From 2 feet to 3 feet		1,062	
From 3 feet to 4 feet		913	
Over 4 feet		1,014	
Total ...	20,599	7,297	

On the western edge of Kyetpyugan, between the old plantation and the additions of the year, mounds were thrown up at a cost of Rs. 94-10-8 and nurseries formed at a cost of Rs. 30-15-9, with a view to formation of an evergreen trace of mango, thitkado, and padauk. The plants schooled in the nurseries were, however, transplanted into the new plantations to fill up blanks among the teak.

93. *Toungoo Division.*—As suggested in last year's annual report, the experiment of planting up the fire-trace of the Pyunchaung reserve has been discontinued. The work was continued in a desultory manner in the Yanè reserve by the local forester and no expense was incurred.

(*b*).—*Exotics.*

Mahogany.

94. Only two plants now remain in the Prome plantation and they are sickly. In the Chaungzauk reserve eight are still alive these are reported thriving; and, with constant clearing from overgrowth, may develop into fine trees.

Three plants in the Tharrawaddy garden succumbed to the heat this year and only 45 of those planted at Kywemakaing have survived; 63 have died. One hundred and twenty-one young plants were raised this year; five died, six were sent to Rangoon, and 110 remain still in pots.

In the Rangoon division the 39 trees alive at the beginning of the year have been reduced to 34, varying from 3 feet to 20 feet in height and 1 foot to 6 inches in girth. They generally wear a healthy appearance, but when about 3 feet to 6 feet in height the top shoots, whose growth is induced by the early showers, get dried up and withered by the drought and heat in April; hence shortness of boles, branching development, and want of predominating main shoot.

Pithecolobium saman.

95. The trees near the Thônzè bazaar have borne seed. The President of the Municipality sent some seed to the garden, from which young plants were raised and handed over to the Executive Engineer.

The soil and situation at Magayi are uncongenial and the trees present a miserable and drooping appearance. In the Pyunchaung reserve, on the contrary, they thrive, as also do those planted near the elephant-shed at Prome.

Ficus elastica.

96. Only three of a number of cuttings sent from Magayi to Tharrawaddy forest garden struck root; in Magayi the number has been increased to 38, which, as well as *Ficus retusa* and *Ficus imporensis*, are healthy and vigorous.

Ceara rubber.

97. The trees planted in 1883 in the forest garden at Tharrawaddy have made wonderful progress, and although, with only one or two exceptions, they have branched very low down and have already borne seed, they seem very healthy. Two thousand seven hundred seeds were received from Mergui,—100 were given to Andrew Maung Zan, 800 to the Deputy Commissioner for the towns of Minhla and Gyobingauk, 100 were sown at Kangyi and Kywemakaing, but only Andrew Maung Zan succeeded in raising any plants.

From the remainder of the seeds 202 plants were raised and planted out in the garden. Five hundred and thirty-four seeds were collected in the garden; they have been sown in pots and appear to be germinating more freely than imported seed.

At Magayi the number of ceara trees decreased to 60, of which the largest is 22 feet high and 9 inches in girth; they generally present a healthy appearance. Three planted in the Palôn rest-house in 1882 are 17 feet high and between 7 and 9¼ inches in girth.

Chevannesia esculenta.

98. At the close of the year the number of kyetpaung plants had been increased to 552, of which 39 were in pod. The expenditure incurred on this experiment amounted to Rs. 15-2-4.

Vanilla.

99. The 386 plants were increased to 549, of which 49 flowered with 133 flower clusters; most of these fell off while still in the bud. Only seven pods set, which vary in length from 5 inches to 8 inches. The general appearance of the vanillerie is satisfactory. In addition 208 indigenous vanilla cuttings from the Paunglin reserve have been put out on the rest-house; one flowered and bears one pod. Rupees 6-14-0 were expended in planting.

Morus multicaulis.

99A. When these plants were inspected during the cold weather, it was found that about 60 per cent. had been bitten off at the roots by rats, but were still alive; they were immediately cut up into slips and planted in the rest-house compound at Kadinngazin at a cost of Rs. 9. They were watered and shaded during the hot weather and will be planted out in the yas during the coming rains. At the close of the year

there were in all about 1,000 slips ready for planting and about 500 more available from the plants remaining in the reserve.

Coffee.

100. The number of sickly plants at Pyunchaung has been still further reduced; the experiment is a failure as might have been expected.

Divi-divi.

101. The plants do not flourish in the Tharrawaddy garden.

Plantations at Thandaung.

102. No work was undertaken during the year beyond keeping up the nurseries and weeding the tea and coffee plantations.

Fires occurred in the cinchona plantations and numbers of trees were burnt to death. With soldiers and camp-followers wandering all over the place these fires cannot be prevented, and if the station is once established as a sanitarium, it will be probably found advisable and necessary to clear off all the cinchona near the buildings.

Both tea and coffee thrive, and from the latter 4·5lbs. of berries were sent to Rangoon.

The expenditure incurred during the year only amounted to Rs. 775-8-0, distributed as follows :—

	Rs.	A.	P.
Pay of overseer	360	0	0
Weeding nurseries and tea and coffee	216	0	0
Watering plants	118	8	9
Repairs to covered-in nurseries	80	15	8
Total ...	775	8	0

The nurseries were stocked at the close of the year with—

C. succirubra	3,204	Seedling.
C. calisaya	1,405	
C. condaminea	2,087	
Coffee	9,017	
Tea	93	
Broussonetia	319	

Tharrawaddy forest garden.

103. During the rains the garden presented a more promising appearance than hitherto, but the present exceptionally hot and dry season has exercised a most unfavourable influence.

The following exotics are growing in the garden :—

Eucalyptus	8
Tristania conferta	7
Pomaderris elleptica	1
Mahogany	27
Ficus elastica	18
Vanilla	12
Pithecolobium	214
Divi-divi, about...	20,000
Ceara rubber	228
Maclura aurantiaca	12

The expenditure during the year amounted to—

		Rs.
AVII*a*.	Clearing paths	136
	Laterite	225
AVII*c*.	Clearing wells and drains	162
AVIII*d*.	Manure	440
	Labour	1,422
	Sundries	13
AVIII*f*.	Gates and fences	170
	Total ..	2,568

9.—Communications and Buildings.

(*a*).—*Roads and Bridges.*

Kimpadi road.

104. The Kimpadi road work again made very slow progress as no contractor with any capital could be found to take it up. Rupees 1,593-14-0 have been expended on the

collection of 274½ heaps and the spreading of 71 of these. The remaining 203½ heaps are now being spread (1885-86), when the work will be closed.

In clearing inspection paths Rs. 6-5-4 was spent on Upper Zamayi reserve, Rs. 8-5-4 on South Zamayi reserve, and Rs. 18-5-4 on Paunglin.

Owing to changes in the course of the Magayi stream the Kimpadi bridge had to be protected by a weir at a cost of Rs. 39-13-11.

Petty repairs to bridges in depôt.

105. Repairs to five small bridges and to the main road at the Government timber depôt entailed an outlay of Rs. 203-9-6.

(b).—Removal of Obstruction and Clearing of Chaungs.

Streams cleared in the Tharrawaddy division.

106. In the Tharrawaddy division the following streams were cleared :—

	Rs.	A.	P.
Shwele at a cost of	500	0	0
Taungnyo at a cost of	400	0	0
Bawbin at a cost of	342	6	0
Bilin at a cost of	219	4	9

Blasting operations in the Rangoon division.

107. Blasting work was continued in the Zamayi valley, some small obstructions were removed in the Pyinma chaung, the Hgnetpyin chaung had to be re-blasted in consequence of a timber block occasioned by the carelessness of a contractor, and the obstructing rocks at the base of the waterfall in the Bamalaik stream were blown up; the expenditure amounted to Rs. 960-11-9, of which Rs. 199-2-0 are only shown in the year's accounts.

The details are as follows :—

Reserve.	Stream.	Nature of obstruction.	Cost.						Total.		
			Labour and conveyance.			Dynamite.					
			Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
.....	Pyinma ...	Small rocks, kadin, and boulders.	207	8	5	66	6	0	273	14	5
South Zamayi ...	Hgnetpyin	Timber block, also small kadin and boulder.	282	0	8	66	6	0	348	6	8
Upper Zamayi ...	Bamalaik	Ledge of rock and boulder obstructing outflow from base of waterfall.	272	0	8	66	6	0	338	6	8
		Total ...	761	9	9	199	2	0	960	11	9

Streams cleared in the Toungoo division.

108. The Saing and Yanè streams were cleared of fallen trees, &c., at a cost of Rs. 988-12-0.

(c).—Buildings.

Repairs to office buildings, &c.

109. Repairs were being executed to the forest office at Prome, the total cost of which amounts to Rs. 575. Only Rs. 85-14-6 were expended during the year.

Out-houses for the Paungdè bungalow were built at a cost of Rs. 485-8-0.

The office and bungalow at Toungoo were completed at a cost of Rs 14,000 charged off in the previous year.

Repairs to rest-houses and guard-houses at depôt.

110. The following sums were expended in the different divisions in repairing rest-houses :—

	Rs.	A.	P.
Toungoo	219	4	10
Tharrawaddy	233	12	0
Rangoon	892	12	0
Prome	75	0	0
Rangoon timber depôt	2,494	1	0

The rest-house at Pyunchaung in the Toungoo division was totally destroyed by fire. The origin of the fire was never traced.

CHAPTER IV.

YIELD AND WORKING.

1.—*Departmental Operations.*

Total yield of teak.

111. In all 39,079 teak logs and pieces were extracted by direct Government agency, showing an increase of 11,546 upon last year's outturn, also 7,000 sleepers and 696 planks.

Outturn from each division.

112. The outturn from each division is shown in the statement below :—

	Number of logs.	Sold locally.	Sent to depôt.	Average cost of extraction.	Received in depôt, Rangoon or Bassein, during year.	Remarks.
				Rs. A. P.		
Prome	8,494	...	8,494	11 5 1	8,494	
Tharrawaddy... ...	15,847	21	15,847	7 10 9	18,294	
Rangoon	324	2	322	12 5 4	322	
Toungoo	7,521	588	7,027	12 7 8*	7,642	* Cost calculated upon 6,704 logs paid for during year.
Shwegyin	1,358	756	1,167	6 0 0	1,173	
Western	497	141	356	...	356	
Total ...	29,041	1,508	28,213	...	31,281	
	Refuse and Paddy-field Teak.					
Prome	783	783	...	...	...	Sold at Rs. 10 per ton.
	141	...	...	2 7 0	...	Posts.
	8	2	...	8 0 0	...	Logs.
Tharrawaddy... ...	4,253	...	...	1 14 5	...	Stored along railway line.
Rangoon	4,858	173	4,793	13 6 11	4,685	
Total ...	10,038	958	4,793	...	4,685	
GRAND TOTAL ...	39,079	2,466	33,006	...	35,966	

Prome Division.—The yield of logs from the different forests was as follows :—

	Rs. A. P.
Bulè,—1,238 logs, average cost of extraction	11 9 10
Bangôn,—92 logs, average cost of extraction	11 11 1
Nawin,—2,164 logs, average cost of extraction ...	10 14 5

Tharrawaddy Division.—The following is a list of teak logs delivered to the Rangoon depôt :—

Forest.	Logs.	Cost.	Cost per log.
		Rs. A. P.	Rs. A. P.
Thônzè	1,928	15,790 7 0	8 3 0
Kôn-Bilin	1,265	9,212 15 0	7 4 6
Bilin	338	2,846 12 0	6 15 1
Môkka	454	3,334 12 0	7 5 6
Minhla	2,288	13,255 0 0	5 12 8
Myaung	543	1,649 14 0	3 0 7
Gamôn	286	2,337 8 0	8 1 7
Taung	496	1,906 5 0	3 13 6
Minbu-Bawbin	2,689	22,920 15 0	8 8 5
Taungnyo	7,083	57,007 8 0	8 0 9
Kaugyi	3	23 12 0	7 14 8
Shwele	860	10,131 0 0	11 12 6
Total ...	18,233	1,39,916 12 0	7 10 9

Rangoon Division.—The 324 logs were extracted from the Pegu range, Letpan forests, and the average cost per log was Rs. 12-5-4 (based on the amount paid during the year for 697 logs).

Toungoo Division.—The timber was brought from the following forests:—

Forest.	Logs.	Cost of extraction per log. Rs. A. P.
Kyaukmasin	678	
Minyè	687	
Daunglangya	204	... ... 18 1 10
Mehan	2	
Linbyè	27	
Thaukyegat	171	... ... 14 12 8
Myohla	887	... ... 11 12 11
Saing and Swa	1,366	... ... 12 4 0
Gwethe	72	... ... 8 2 8
Kanni	16	... ... 8 12 4
Kabaung	2,127	... ... 11 8 1
Yaukthawa	120	... ... 10 12 0
Pyu and Kôn	1,100	... ... 6 11 8
Pathi	23	... ... 4 0 0
Samo	66	unpaid for at close of year.
Kunôn	25	

Shwegyin Division.—The wood brought from the Kauliya, Môn, and Pada forests was all extracted under an arrangement by which the contractor received half of the wood in payment; it was valued all round at Rs. 12 per log, so the cost of extraction is Rs. 6 per log.

Western Division.—The Ôkpo and Pazi forests furnished 270 logs and the Kyaukchaunggale 227 logs. Some 300 logs were expected from the Kwingauk forests, but the death of the contractor interfered with the work and none of the timber came out.

Woods other than teak extracted departmentally.

113. From the Tharrawaddy division 106 logs kanyin, costing Rs. 809, were despatched to Rangoon; Toungoo extracted 120 logs pyinma and 36 logs thitka; Rangoon sent down 71 logs girdled pyinma at a cost of Rs. 5-15-7 per log. For the Calcutta sleeper-supply 7,611 pyingado logs were also brought out, of which 7,028 were paid for at an average rate of Rs. 6-2-2 per log. The Western division extracted for local demands at Bassein 231 kanyin and 182 logs of other kinds; it also supplied the Director-General of Telegraphs with 500 pyingado posts; and for conversion into sleepers 1,808 pyingado logs were delivered at Bassein at Rs. 13 per ton, or Rs. 9-8-4 per log.

Supply of sleepers to Burma State Railway.

114. The Shwegyin division made over 11,401 pyingado sleepers at Rs. 1-10-0, 456 pyingado sleepers at Re. 1, and 700 teak sleepers at Rs. 2, to the Burma State Railway, and at the close of the year had a balance of 2,000 teak and 1,516 pyingado sleepers still on hand.

Supply of sleepers to Northern Bengal State Railway.

115. Regarding the supply of sleepers to the Bengal Railway, in paragraph 116 of last year's report a detailed account was given of the transactions to the close of that year.

The following is a continuation and shows the result of the work to end of the year under review:—

Revenue.

	Rs. A. P.	Rs. A. P.
I.—Calcutta—		
72,806 narrow-gauge sleepers accepted ...	1,49,890 8 0	
4,867 narrow-gauge sleepers rejected ...	9,054 10 0	
1 528 broad-gauge sleepers	7,234 4 0	
		1,66,179 6 0
II.—Rangoon—		
(*a*) Sleepers—		
1,350 narrow-gauge sleepers, Burma State Railway	2,193 8 6	
3,000 refuse sleepers, Tramway Company	1,125 0 0	
		3,318 8 6

(b) Scantlings—							
8,685 pieces and 2,889 running feet scantlings sold locally ...	16,099	11	3				
14,572 pieces sold at Botataung depôt by Agency division	10,489	0	1				
				26,588	11	4	
(c) Slabs for fuel—							
2,097 tons	4,231	15	0				
				4,231	15	0	
Total ...				2,00,318	8	10	

Expenditure.

	Rs.	A.	P.	Rs.	A.	P.
Timber—						
7,028 logs paid for	48,128	12	0			
140 logs cross-cutting	88	0	0			
				48,216	12	0
Conversion—						
(a) Narrow-gauge sleepers—						
56,894 accepted at Calcutta ...	19,808	11	0			
5,280 from rejected logs ...	2,662	8	0			
250 Bengal State Railway ...	85	15	0			
Rejections—						
4,867 Calcutta	1,536	3	6			
3,000 sold to Rangoon Tramway ...	247	8	0			
				24,340	13	6
(b) Broad-gauge sleepers—						
975 Calcutta	748	4	0			
				748	4	0
(c) Scantlings—						
26,216 pieces and 3,979 running feet	12,168	1	10			
				12,168	1	10
III.—Commission on sale of rejected sleepers, Calcutta	504	8	6			
				504	8	6
IV.—Railway freight—						
(a) Narrow-gauge sleepers—						
84,063 Palôn to Rangoon ...	6,530	3	0			
793 Calcutta to Sara ...	154	7	9			
				6,684	10	9
(b) Broad-gauge sleepers—						
860 Palôn to Rangoon ...	142	0	0			
				142	0	0
(c) Scantlings—						
21,055 pieces, 12-trucks load, and 90 timber slabs—						
Palôn to Rangoon ...	2,694	0	0			
				2,694	0	0
V.—Steamer freight—						
76,469 narrow-gauge sleepers ...	15,293	9	3			
1,285 broad-gauge sleepers ...	669	3	3			
				15,962	12	6
VI.—Unloading and shipping—						
80,857 narrow-gauge sleepers ...	5,896	10	7			
1,885 broad-gauge sleepers ...	263	13	0			
Strand-bank dues	71	0	4			
Jetty charges on 51,752 sleepers	476	3	0			
Excess fees	26	2	0			
				6,733	12	11
VII.—Unloading and stacking scantlings—						
163 trucks sent to Botataung depôt	407	8	0			
				407	8	0
Total ...				1,13,603	4	0

116. To show completely the revenue and expenditure upon the sleeper-supplies to the Bengal State Railways, the following must be added on account of the sleepers supplied from Shwegyin :—

Summary of sleeper operations.

Receipts.

	Rs.	A.	P.	Rs.	A.	P.
1883-84—						
6,811 sleepers at Rs. 2-1-0	14,047	11	0			
				14,047	11	0
1884-85—						
21,527 sleepers at Rs. 2-1-0	44,400	1	0			
1,805 rejections	3,064	6	0			
				47,464	7	0
Total Receipts ...				61,512	2	0

Expenditure.

	Rs. A. P.	Rs. A. P.
1883-84—		
Freight on 12,109 sleepers	2,431 0 8	
Shipping charges	8 2 0	
		2,439 2 8
Paid K J and Co. on 7,614 sleepers		11,349 9 11
		13,788 12 7
1884-85—		
Paid for 20,724 sleepers	30,891 11 6	
Paid fo 1,527 rejections	1,909 9 9	
		32,801 5 3
Freight on 21,690 sleepers	4,540 8 5	
Shipping charges	9 3 0	
		4,549 11 5
Total ..		37,351 0 8
Total Expenditure ...		51,139 13 3

Summary.

Revenue.	Rs A. P.	Expenditure	Rs. A. P.
1883 84	43,226 15 6	1883 84	45,818 5 9
	14,047 11 0		13,788 12 7
1884-85	2,00,318 8 10	1884-85	1,13,603 4 0
	47,464 7 0		37,351 0 8
Total ...	3,05,057 5 4	Total ...	2,10,561 7 0
		Surplus ...	94,495 14 4

Further supplies of pyingado sleepers.

117. A further agreement through the Directors of the Bengal Stone Company has been entered into for the delivery of 75,000 sleepers to the Northern Bengal State Railway, and arrangements have been made to supply State railways on the Madras side with 100,000 narrow-gauge sleepers.

State of contractors' accounts.

118. The total balance outstanding against contractors throughout the circle was Rs. 51,629 against Rs. 1,17,700 at the close of last year. The Prome division is quite clear. Tharrawaddy has reduced the balance to Rs. 27,856. The books of Toungoo and Shwegyin together only show Rs. 940, which are amply secured by work done. Of the Rs. 10,895 outstanding in the Rangoon division, with the exception of Rs. 250 (an advance to a drift-timber contractor), the whole is covered, and the balance of Rs. 4,655 in the Agency division will be recovered during the next official year. The Western division shows Rs. 17,282 balance due from contractors. Large advances had to be made on the security of elephants to the men who took up the pyingado contracts. These advances, with the exception of Rs. 954 against a contractor since dead, are being worked off.

2.—*Removal of Produce by Purchasers.*

(*a*).—*Timber.*

Cutch trees purchased from reserves.

119. From the following reserves in the Tharrawaddy division 2,706 cutch trees were sold for Rs. 6,118-8-0 :—

	Trees.	Rs. A. P.
Gwedaukkwin	747 ...	1,876 0 0
Nyanle	1,745 ...	3,850 0 0
Thakolan	6 ...	25 0 0
Kyaukkyidaung	44 ...	103 0 0
Minhla	164 ...	264 8 0

Ninety-four cutch trees were purchased by the Bombay Burma Trading Corporation, Limited, for Rs. 282 from the Tindaw reserve in the Prome division.

Teak and other reserved woods extracted by purchasers outside reserves.

120. From the Prome division 59·5 tons teak from paddy-fields were sold for Rs. 790-5-0, and some small teak poles for Rs. 94. In the Tharrawaddy division 101 tons paddy-field teak were disposed of for Rs. 1,254-9-3 and 89 teak trees for Rs. 891. Purchasers extracted 28¼ tons teak from the Toungoo forests, paying Rs. 897-4-6. The sale of 18·8 tons in the Shwegyin division, extracted by consumers, realized Rs. 258-10-0. From the forests in the Western division 61·8 tons of refuse teak were brought out, for which Rs. 754-9-6 were received.

The following detailed statement shows the quantity of timber of the reserved kinds extracted and the amount realized :—

Division.	Kanyin.	Pyinma.	Thitka and kashit.	Thingan	Thitkado.	Kaungmu.	Pyingado.	Amount.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Rs. A. P.
Tharrawaddy	4	11	...	...	...	...	...	138 15 8
Rangoon	34	2	169·6	5	...	...	...	1,860 12 9
Toungoo	...	17·7	...	48·3	...	...	...	569 0 0
Shwegyin	1,520·6	106·2	...	14	121·7	1	...	13,693 2 6
Western	171·5	36·9	2	1	3·2	...	...	1,960 9 9
Agency	...	35·5	...	...	...	...	908·5	2,831 15 10
Total ...	1,730·1	209·3	171·6	68·3	124·9	1	908·5	21,054 8 1

Unreserved trees.

121. The number of unreserved trees extracted under permits and removed by purchasers, and the revenue obtained, will be gathered from the following :—

Division.	Dugyis or hlwazas.	Yathits.	Posts.	Poles.	Amount.
	No.	No.	No.	No.	Rs. A. P.
Prome	11,699	12,140	16,118	26,950	27,898 11 5
Tharrawaddy	4,983	4,520	...	909	12,213 7 9
Rangoon	4,334	7,071	2,561	...	13,001 0 3
Toungoo	7,299	4,095	985	5,000	14,173 7 11
Shwegyin	11,902	2,296	8,013	475	24,208 10 3
Western	15,850	...	10,127	56,025	20,783 1 4
Agency	3	...	...	23,885	188 1 3
Total ...	56,070	30,122	37,804	113,244	1,12,466 8 2

Previous to the issue of the notification allowing people to cut firewood without licenses, 1,650,000 billets were granted free by the Rangoon Divisional Officer.

(b).—*Minor Forest Produce.*

Sales from reserves.

122. The sales of minor forest produce from reserves realized Rs. 6,103, made up of the following:—

Division.	Bamboos.	Grazing.	Shaw fibre.	Cigar leaves.	Thetkè.	Wood-oil.	Honey.	Cutch.	Firewood.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Prome	19	...	...	...	...	...	...	...	...
Tharrawaddy	2,724	201	258	175	131	90	44	642	...
Rangoon	1,478	44	84	...	34	...	...	...	4
Toungoo	188	...	43	...	...	4	...	...	...
Total ...	4,349	245	385	175	165	94	44	642	4

Minor forest produce outside reserve.

123. Outside reserves Rs. 86,908 were collected on account of minor forest produce:—

Division.	Cutch.	Charcoal.	Wood-oil.	Thitsi.	Dammar.	Firewood, &c.	Remarks.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Prome	47,920	176	108	...	...	15	
Tharrawaddy	33,040	193	128	...	...	...	
Rangoon	100	472	104	...	...	...	
Toungoo	558	48	184	184	18	...	
Shwegyin	...	372	110	...	...	...	
Western	1,000*	88	254	...	...	...	*Approximate only.
Agency	...	...	100	...	...	1,741	Collected in Arakan.
Total ...	82,618	1,344	988	184	18	1,756	

The cutch revenue for the year is but little short of the previous one, although it was believed in the Prome and Tharrawaddy divisions, from which this revenue is chiefly derived, that workable trees had almost disappeared.

3.—*Free Grants.*

Free grants.

124. The following tabular statement gives the necessary details regarding the free grants of teak and the other reserved woods:—

By whom issued.	Number of licenses.	Quantity in tons.				
		Teak.	Pyinma.	Thingan.	Thitkado.	Kanyin.
Commissioner { Pegu division	...	...	...	...	...	...
Commissioner { Tenasserim division	12	4	56	1	1	...
Commissioner { Irrawaddy division	41	222	334	...	...	48
Conservator of Forests, Pegu Circle	85	485	104	7½	...	11
Total ...	138	711	494	8½	1	59

4.—*Summary of Yield.*

Total yield of all divisions.

125. The total yield of each division is shown in the following statement:—

Division.	Extracted.	Teak.		Reserved trees.	Unreserved trees.	Cutch.	Bamboos.	Charcoal.	Wood-oil.	Posts.	Poles.	Shaw fibre.	Thatch.	Cigar leaves, number in 100.	Honey.
		Logs, &c.	Tons	Tons	Logs	Trees	No.	Bkts.	Viss	No.	No.	Viss	Bdls.	No.	Viss
PROME	By Government agency	4,421	3,580	...	.	..	...	...	...	...	...	...	...	...	...
	„ purchasers	42	61	...	...	94	...	...	...	...	...	..	...	...	...
	„ trade permits	...	..	...	23,482	23,960	7,400	3,000	108	16,118	26,967	...	...	..	...
	„ free do.	...	210	...	...	...	...	...	...	...	...	...	...	...	...
THARRAWADDY	By Government agency	20,100 (a)	15,972	144	40	...	...	...	...	...	...	...	...	...	..
	„ purchasers	89	101	15	9,503	119,396	1,090,200	19,300	4,360	...	909	25,725	15,620	35,125	200
	„ trade permits														
	„ free do.	...	336	15	4	..	...	..	...	...	...	...	.	...	...
RANGOON	By Government agency	5,182	4,249	71	7,611	...	...	...	...	...	...	...	...	...	...
	„ purchasers	...	210	...	...	109	581,400	47,200	1,000	2,561	11,405	1,480	.	..	...
	„ trade permits	...													
	„ free do.	...	10	25	...	...	...	...	...	...	...	...	...	...	...
TOUNGOO	By Government agency	7,521	6,167	120	..	...	...	.	.	...	...	...	..	...	.
	„ purchasers	5	23	66	12,379	4,000	53,450	20,160	616	...	5,000	4,260	...	...	...
	„ trade permits														
	„ free do.	...	13	52	...	...	...	...	...	...	...	...	...	...	...
SHWEGYIN	By Government agency	1,358 (b)	1,323	...	400 (c)	...	...	...	..	...	...	...	...	...	...
	„ purchasers	...	19	1,764	14,198	...	..	18,600	1,000	8,013	475	...	...	...	...
	„ trade permits	...	...	...	...	...	...	...	..	...	...	...	...	...	...
	„ free do.	...	5	80	...	...	...	...	...	...	...	..	...	...	...
WESTERN	By Government agency	497	407	402	2,319	...	...	...	...	...	...	...	...	..	...
	„ purchasers	88	52	215	15,850	600	...	8,800	500	10,127	56,025	...	...	...	...
	„ trade permits														
	„ free do.	...	137	289	60	..	...	...	..	...	...	..	...	...	—
	Total ...	39,303	32,875	3,258	85,846	148,150	1,732,450	117,060	7,584	36,819	100,781	31,465	15,620	35,125	200

(a) Includes 676 planks. (b) Includes 7,000 sleepers. (c) Yielded 1,805 sleepers.

5.—*Drift Operations.*

Collection of drift and waif.

126. The different divisions collected during the year 5,322 teak and 150 logs of other kinds; the balance in hand at the close of last year amounted to 750 teak and 525 logs of other kinds, making a total of 6,072 teak and 675 other kinds.

The disposals were as follows:—

Division.	Returned to claimants.	Sold.		Utilized departmentally.	Drifted.	Balance at end of year.	
		Teak.	Other kinds.			Teak.	Other kinds.
Prome	87	41	8	...	...	13	1
Toungoo	1,671	185	21	...	...	8	...
Shwegyin	1,046	214	116	2	1	386	328
Western	128	153	2	...	1	75	...
Agency	1,596	885	139	...	...	110	3
Tharrawaddy	...	...	...	...	...	5	12
Total ...	4,478	928	281	2	2	597	339

In transit to the Rangoon depôt 66 logs were lost.

Confiscated timber.

127. Twenty-nine logs of unreserved kinds, which had been confiscated in the Rangoon division, were disposed of for Rs. 80, also 26 logs confiscated by order of the Deputy Commissioner, Akyab, realized Rs. 30. Some 764 pieces of teak scantling, illegally converted by a pôngyi of Thilawa, who was sent to jail, were disposed of for Rs. 1,970.

6.—*Girdling.*

Proposals for teak girdling.

128. It was proposed to girdle in all 15,000 teak trees, of which 1,200 were to be chosen inside reserves and the balance, unless specially required, to be taken from the forests outside.

Work carried out.

129. Inside reserves 1,731 trees have been girdled,—1,004 in the Thônzè, 202 in the Môkka, and 525 in Karen areas in the Zamayi. The girdling in the Zamayi was undertaken to provide timber work for the Karens residing in these tracts.

Outside reserves 13,715 trees have been killed as follows:—

Division.	Forests.	Number girdled
Prome	Myedè	1,000
	Nawin	1,000
Tharrawaddy	Bilin	2,161
	Minhla	2,459
	Taung	220
Rangoon	Pegu	875
Toungoo	Saing	2,500
	Swa	2,000
	Kabaung	1,500
	Total ...	13,715

The total number of teak trees girdled is therefore 15,446, or 254 below the full number allowed for the circle. The work has been revised by the Divisional Officers; and in the Rangoon, Tharrawaddy, and Toungoo divisions partially by the Conservator. Further details will be found in Appendix D.

Girdling of other species than teak.

130. In the Toungoo division, in addition to the teak, 1,000 pyinma, 275 padauk, and 110 petwun trees have been girdled, and in the Shwegyin division 500 pyinma and 500 kanyin trees.

The girdling of 500 pyinma trees in the Rangoon division was not completed at the end of the year.

Disposals and Sale Depôts.

Local sales.

131. From the depôt at Prome two refuse teak and 164 posts were sold for Rs. 844-8-0. The sale by auction of 214 In, 130 theya, and 147 inyin logs produced Rs. 1,093-15-3. In Tharrawaddy eight teak logs were purchased by the Gyobingauk Municipality for Rs. 645-15-3, and at Sanywe 12 logs—10 teak, one pyinma, and one thingan—were sold for Rs. 220. Local sales in the Rangoon division realized Rs. 8,253-5-1, made up of the following :—

Place.	Timber.	Logs or pieces.	Amount.
			Rs. A. P.
Pegu ...	Girdled teak	2	90 2 6
	Refuse teak	173	7,911 8 10
	Teak poles	1	6 0 0
	Confiscated teak	4	70 11 8
	Kanyin	7	89 14 6
	Thayet	5	5 0 0
Palôn ...	Thitya, ingyin, yathits	10	20 0 0
	In hlwazas	4	
	Confiscated in logs	15	60 0 0
	Total ...	221	8,253 5 1

The sale of 588 teak logs in the Toungoo division produced Rs. 8,910-8-2, and four kanyin, three pyinma, and 37 thitka logs were sold for Rs. 383; 156 'bala' and waif logs were disposed of for Rs. 1,756. In the Western division 141 inferior teak logs were sold at Ngathainggyaung at Rs. 15 per ton, and at the Bassein depôt the following timber was sold :—

	Rs. A. P.
78 logs pyinma	160 0 0
90 ,, kanyin	969 0 0
111 ,, kashit	1,294 8 0
11 ,, other kinds	141 0 0

The Director-General of Telegraphs also received 500 telegraph posts from the Bassein depôt.

Rangoon Agency and Depôt.

Closing balance at depôt on 31st March 1885.

132. The balance of timber in hand at the Government timber depôt at the close of the official year was—

Teak.

Logs.		Crooks.	Sleepers.	Tons.
I class.	*II class.*			
1,911	30,487	...	57	26,859

Woods of other kinds.

Logs.	Sleepers.	Scantlings.	Tons.
202	...	...	178

valued at Rs. 23-2-7 per log all round, or a total of Rs. 7,56,551-8-0 as per classified list of timber in hand on 31st March 1885. The valuation is based somewhat low, one-third of the stock consisting of inferior and refuse timber, also to meet the present state of the market.

Balance detailed for each division.

133. The following table shows the amount of timber in hand on account of the several divisions at the close of the year :—

Divisions.	Teak logs.	Logs, woods of other kinds.	Teak sleepers.	Drift timber. Teak logs.	Drift timber. Logs, woods of other kinds.	Total.
Tharrawaddy	18,865	...	...	...	...	18,865
Rangoon	5,907	73	...	12	...	5,992
Prome	3,357	...	...	...	...	3,357
Toungoo	3,806	126	...	...	...	3,932
Shwegyin	853	...	...	...	...	853
Western	...	...	...	52	...	52
Agency	...	...	57	46	3	106
Total ...	32,288	199	57	110	3	32,657

CHAPTER V.

Financial Results.

Financial results and comparison with previous years.

134. The revenue collected during the year amounted to Rs. 12,71,328 and the expenditure to Rs. 9,04,119, leaving a surplus of Rs. 3,67,209. This contrasts very unfavourably with the previous three years—

	Receipts. Rs.	Expenditure. Rs.	Surplus. Rs.
1881-82	13,29,842	7,59,542	5,70,300
1882-83	16,26,331	8,38,233	7,88,098
1883-84	18,51,228	8,03,952	10,47,276
1884-85	12,71,328	9,04,119	3,67,209

The decrease is entirely owing to the fall in the price of teak. The sales from the Rangoon depôt in 1883-84 amounted to 22,269 logs, realizing Rs. 12,80,894, and this year only 19,855 logs were sold, producing Rs. 6,56,063, or a difference of Rs. 6,24,831. This is a fall of Rs. 2[illegible]8-0 per log, or Rs. 22-13-0 per ton, equal to nearly 45 per cent. The stock in the depôt at the close of the year amounted to 26,859 tons of teak against 14,482 balance in hand last year. Auction sales during the year had to be withheld as no purchasers were forthcoming. The depressed state of trade and the tightness of the money-market had a great influence upon the local demand.

Increased expenditure consequent upon sleeper operations.

135. The expenditure for the year is Rs. 1,00,167 in excess of the previous one, and has been incurred under AI, "Departmental timber operations." It is not in consequence of increased activity in the extraction of teak, but the result of the sleeper operations for the Bengal State Railway. As will be seen from the details given in paragraph 116 of the report, over Rs. 1,50,000 have been paid during the year for extraction, conversion, and carriage of the sleepers.

Financial results arranged divisionally.

136. The financial results arranged divisionally are as follows :—

Division.	Revenue.			Expenditure.	Surplus.	Deficit.
	Locally collected.	Collected by agency.	Total.			
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Prome	88,811	85,399	1,74,210	1,16,621	57,589	...
Tharrawaddy	65,166	2,12,537	2,77,703	2,62,169	15,534	...
Rangoon	2,16,405	1,08,397	3,24,802	2,61,383	63,419	...
Toungoo	35,108	2,59,154	2,94,262	1,43,928	1,50,334	...
Shwegyin	77,946	9,076	87,022	40,261	46,761	...
Western	41,590	315	41,905	55,953	...	14,048
Agency	...	71,424	71,424	23,804	47,620	...
Total ...	5,25,026	7,46,302	12,71,328	9,04,119	3,67,209	...

137. The following summary gives the usual comparison with the two previous years :—

	Receipts.			Charges.			Surplus or deficit.					
	1882-83.	1883-84.	1884-85.	1882-83.	1883-84.	1884-85.	1882-83.		1883-84.		1884-85.	
							Surplus.	Deficit.	Surplus.	Deficit.	Surplus.	Deficit.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Departmental timber operations.	13,86,070	15,95,334	10,19,130	6,57,298	6,34,089	7,14,375	7,28,781	...	9,61,245	..	3,04,755	...
II.—Other revenue ...	2,40,252	2,55,894	2,52,198	67,565	60,670	72,615	1,72,687		1,95,224	...	1,79,583	...
III.—Formation and improvements.	...	...	...	1,13,370	1,09,193	1,17,129	...	1,13,370	...	1,09,193	...	1,17,129
Total ...	16,26,331	18,51,228	12,71,328	8,38,233	8,03,952	9,04,119	7,88,098	...	10,47,276	...	3,67,209	...

Revenue.

Timber worked out by direct agency.

138. A decrease of Rs. 5,22,782 under I*a*, timber operations, owing to fall in the price of teak; under I*b*, Rs. 4,204 were realized by sale of pyingado slabs for fuel.

Produce extracted by consumers.

139. A slight increase of Rs. 2,718 upon timber extracted by consumers. There has been a marked falling off in Tharrawaddy and Rangoon, while Shwegyin shows a satisfactory increase. In the Tharrawaddy division the sale of paddy-field teak has been stopped, and in Rangoon the men, who formerly extracted wood for sale, are nearly all employed in bringing out pyingado for sleeper conversion. The revenue under "Minor forest produce, II*e*," has diminished by only Rs. 150. It is remarkable how the revenue for cutch-manufacture has kept up.

Drift operations.

140. A decrease of Rs. 57,602 has to be recorded under III. It is explained as follows. Last year's revenue was abnormally increased by the sale of over 1,800 drift logs which had gradually accumulated at Myitkyo and other depôts. This year only about 200 were collected and disposed of.

Miscellaneous collections.

141. A decrease of Rs. 6,432, explained by the decrease in amounts accepted for forest offences and by the falling off in registration fees in hammer-marks.

Expenditure.

Expenditure on departmental timber operations.

142. The expenditure under AI shows an increase of Rs. 1,14,663, entirely on account of sleeper operations.

Timber removed by purchasers.

143. Under AII a small increase of Rs. 216-12-0, incurred in collection of the increased revenue under this head.

Drift.

144. The disbursements under AIII, drift, have been reduced by Rs. 5,410 in consequence of fewer logs having been salved during the year.

Live-stock, stores, &c.

145 AVI.—Rs. 5,950 only were spent in the purchase of five elephants against Rs. 7,370 last year. A saving of Rs. 840 was effected in the cost of feed and keep of elephants. For purchase of stores Rs. 884 were spent in excess of last year.

Communications and buildings.

146. An increase of Rs. 1,388 upon last year is shown under (*a*) roads, on account of metalling Kimpadi and Palôn road. The expenditure upon buildings was only Rs. 6,359 compared with Rs. 12,694 in 1883-84. There is a small increase of Rs. 251 on account of clearing floating streams.

Demarcation and improvement.

147. The expenditure under AVIII shows an increase of Rs. 2,376. Demarcation shows a reduction of Rs. 808, and plantations Rs. 1,082; the first in consequence of no Settlement Officer being employed, and the second on account of smaller area of burnt and dead bamboos being operated upon. Surveys (*c*) show an increase of Rs. 2,522 on account of Working Plans establishment; and fire-protection (*e*) is also Rs. 1,445 in excess of the previous year.

Miscellaneous.

148. A reduction of Rs. 1,481 is shown on account of miscellaneous charges.

Salaries.

149. The salaries of superior officers amounted to Rs. 65,733, or Rs. 826 more than the previous year, and those of subordinate officers were Rs. 932 less than in 1883-84. Office establishments show an increase of Rs. 478 on account of annual increments.

Travelling allowance.

150. A decrease of Rs. 1,168 in the travelling allowance of gazetted officers and an increase of Rs. 1,833 on account of subordinates as a consequence of the introduction of the Travelling Allowance Code.

Contingencies.

151. A reduction of Rs. 1,600 has been effected upon contingencies.

General.

Timber market.

152. The market for teak has been depressed throughout the year and prices were on an average 45 per cent. lower than in 1883-84. No noticeable increase has taken place in the consumption of other woods. A list of woods passed at Alôn and Pazundaung is given in the appendix.

Imports from Upper Burma.

153. By the Sittang river 43,864 logs were imported from Upper Burma, and the table below gives the quantity imported by the Irrawaddy:—

Kinds of timber.	Logs.	Square.	Planks.	Boat-pieces.	Wheel-pieces.	Oar-pieces.	Total.
Teak	86,218	8,730	1,099	234	60,930	1,137	108,348
Do.	967	...	...	...	...	...	967
Do.	...	...	4,188	...	...	...	4,188
Do.	170	...	...	...	...	...	170
Do.	558	...	770	...	...	...	1,328
Total ...	87,908	8,730	6,052	234	60,930	1,137	109,991

The quantity imported is considerably in excess of the previous year, and in all probability the outturn will still further increase in 1885-86.

Exports of timber and other produce.

154. The quantity of teak exported from the port of Rangoon was 15,921 tons less than in the previous year, and the difference in value nearly Rs. 21,00,000. Appendix C(5) gives the details, as also the quantity of other timber and forest produce exported from, and imported into, the ports of Moulmein and Rangoon during the year.

Elephants.

155. The year opened with 36 elephants and one calf. To these were added by purchase two dragging and three baggage animals, making 42 in all. One female was stolen from the Toungoo lines and taken across the frontier and another died there of anthrax, leaving a balance of 40 animals located as follows:—

Prome	2
Tharrawaddy	10 and 1 calf.
Rangoon	3
Toungoo	5
Shwegyin	2
Western	3
Agency	14

The average monthly cost per animal was Rs. 35-3-4.

Seed and specimens supplied.

156. Sixty-nine baskets teak seed were supplied to the Deputy Conservator of Forests, Chittagong, and one bag *Chevannesia* pods to Ceylon botanical gardens. To Singapore botanical gardens the following seed was sent:—

10 viss In (*Dipterocarpus tuberculatus*).
10 viss pyingado (*Xylia dolabriformis*).
1 viss thakôkbo (*Bignonia chelonoides*).

Some 15 pieces of wood were sent to the Chemical Examiner, Rangoon, for analysis as to the quantity and quality of their ashes. Several specimens were also forwarded to the Inspector-General of Forests.

Hammer-marks registered.

157. In the Western division 11 hammer-marks were registered for Rs. 55; in the Prome division 81 property-marks were either registered or renewed and Rs. 484 collected; in the Rangoon division two hammer-marks were registered for Rs. 10; and in the Agency division a sum of Rs. 25 was collected for the registration and renewal of 21 hammer-marks.

Steam tree-feller.

158. The steam tree-feller was sent to Bassein to be used in cross-cutting the pyingado logs to be converted into sleepers.

Gazetted officers.

159. Messrs. Hoghton and Hobart-Hampden were appointed by the Secretary of State, and reported arrival in Rangoon on the 5th January 1885. Captain Bingham, upon his return from furlough, was attached to this circle, and Messrs. Weston and Hauxwell were transferred to the Tenasserim circle, Messrs. Aplin and Ward being sent in exchange from that side. Mr. Pickard, who only returned from sick leave at the end of January last, was again attacked with jungle-fever as soon as he commenced work. This attack unhinged him mentally, and he had to be sent to Calcutta for treatment. He has since gone home upon one year's sick leave. Mr. Oliver was appointed Assistant Inspector-General of Forests, and his services placed at the disposal of the Government of India. Mr. Ingram was promoted from Ranger to probationary Sub-Assistant and Mr. E. M. Buchanan appointed Sub-Assistant. All gazetted officers, with the exception of Maung Shwe Gôn, have rendered good service and earned the thanks of the Conservator.

Apprentices.

160. One apprentice, Maung Thakado, returned from Dehra-Dun and was appointed 5th grade Ranger and attached to the Rangoon division.

Subordinate forest and depôt establishment.

161. Ranger Maung Shwe Daung was accused, under section 468, Indian Penal Code, of forgery for the purpose of cheating and fined Rs. 500 by the Deputy Commissioner, Prome. Upon appeal the decision was reversed and the fine refunded. His services were, however, dispensed with as he had been

guilty of gross disobedience of orders and many other offences. In the Tharrawaddy division a guard was sentenced to 18 months' rigorous imprisonment for misappropriation of revenue.

Superintendent of Conservator's Office, and Officer in charge of Rangoon Agency and Depôt and office establishment.

162. The Officiating Conservator records his appreciation of the assistance rendered him by Mr. Buchanan, the Superintendent of his office, and acknowledges the zeal and ability displayed by Mr. Allmark, Depôt and Agency Officer. The office establishments generally have rendered satisfaction.

E. P. POPERT,

Officiating Conservator of Forests,

Pegu Circle.

APPENDICES.

WORKING PLANS FOR THE FORESTS IN BRITISH BURMA

I.—Working Plan of 1856.

1856 to 1867.—The first plan for the working of forests in British Burma was drawn up by Mr. Brandis in 1856. It extended to the Pegu forests only, and was calculated for a period of 24 years, though the actual girdlings were *prescribed* for six years only, 1856 to 1861.

The area of these forests was estimated at 7,312 square miles, although valuation surveys extending only over 30 square miles were made in four districts; and, from the results obtained, it was calculated that the stock of marketable first class trees was 584,960. Of these 7,312 square miles, only 2,397 were estimated to be teak-producing, containing 1,855,000 mature teak trees above 6 feet in girth. As for the remainder of the peuplement, the result of a counting showed that the different classes stood in the following proportions:—

First class trees, six feet girth and above ..	29
Second class trees, 4½ to 6 six feet girth ..	40
Small trees and seedlings	500

It was estimated that it required 24 years for a second class tree to attain marketable size, and the principle proposed in the plan was to girdle annually $\frac{1}{24}$th of all first class trees.

The forests were divided into six large divisions, to be worked in rotation, one only at a time; and in each division the maximum outturn for the six years was fixed at ¼th the total number of first class trees of teak which it was supposed to contain.

General proposals were also made for the commencement of teak plantations, especially teak taungya-plantations, and for the improvement of the forest by sowing teak, and by other measures in aid of natural reproduction.

II.—Revision of Working Plan of 1856.

1856-57 to *1867-86.*—This plan was further elaborated during the years 1858 to 1862, on the basis of more complete valuation surveys, and in the latter year a revised plan was drawn up, which extended to the Tenasserim and Martaban forests, but from which were excluded 110 square miles of forest in the Ataran and Pandaw districts in private hands, as well as 200 square miles west of the Irrawaddy leased out with permission to girdle.

The revised plan was drawn up for a period of 12 yeras, 1856-57 to 1867-68.

Table 4 of tabular statements accompanying report on teak forests in Pegu for 1856

Table 5 of Pegu Report 1856

Table 4 of Pegu Report, 1856

Mr Brandis "Suggestions regarding Forest Administration in British Burma 1881 pages 4 and 5

Pegu Report for 1856 page 7.

Revised working plan—Public Works Proceedings, 1870.

			Sq. miles.
			2,397
Deduct—			
Ataran ..	..	100	
West Irrawaddy	..	200	
			300
			2,097
Trees ..	..	..	1,855,000
Deduct—			
Ataran .	..	55,500	
West Irrawaddy	..	60,000	
			115,500
			1,739,500

The area of teak localities was estimated at 2,097 square miles, with a standing crop of 1,739,500 first class teak trees and the average age of a teak tree 6 feet in girth at 62 years.

Upon these data the maximum yield of the forests for 12 years was fixed at 324,124 first class trees, or 27,100 annually, equal to about $\frac{1}{64}$th of the whole quantity of marketable timber.

In calculating the outturn for each forest district, local circumstances were taken into consideration, such as the rate of growth, proportion of younger trees to marketable trees, and the accessibility of the forest; but, as a rule, it was not intended to kill more than one in every four of the first class trees in any locality.

During the first six years 152,282 trees had been girdled, so that there remained a balance of 171,842 for the second period of six years.

The number of trees actually girdled, compared with the amount estimated, is shown in the following table:—

Name of forest district	Plan of 1856		Revised plan of 1862			Trees actually girdled 1862-63 to 1867-68	Total results		
	Maximum number of trees proposed to be girdled during first six years, 1856-57 to 1861-62.	Trees actually girdled, 1856-57 to 1861 62	Area of teak localities, square miles	Number of first class trees estimated to be on hand in 1856	Maximum number of trees proposed to be girdled, 1862 63 to 1867-68.		Total quantity proposed to be girdled during the 12 years	Trees actually girdled	Balance not girdled
East Prome	20,000	16,068	225	167 000	15,000	11,668	297,923	291,430	6,492
Tharrawaddy	28,000	60,339	670	658,000	47,215	40,790			
Southern forests	20,160	44,272	355	205,000	23,000	17,874			
Sittang	57,920	21 638	400	400,000	48,875	54,543			
Yunzalin and Upper Salween			437	308,500	10,203	16,053			
Lower Salween					3,549				
Taungyin					24,000				
Total	126,080	152,232	2,087	1,728,500	171,842	140,928			

With reference to this table, it is to be noticed that from 1856 to 1859 no officers were available to supervise the work in the forests; and that out of 144,617 trees reported to have been girdled during that period, only about one-half is supposed to have been actually killed.

The works of improvement carried out during the above period, in pursuance of the general provisions of the plan, were as follows.

Teak plantations, aggregating 145 acres and costing from Rs. 13 to Rs. 95 an acre, were made in the Prome, Tharrawaddy, and Sittang districts, the latter being on the teak taungya system. Several small plantations were also formed by the foresters in the neighbourhood of their villages.

Thirty-five rocky obstructions in the hill streams were blasted, some 300 square miles of forest being thereby rendered accessible, and a canal 7,270 feet in length was dug, in order to make the lower course of the Shwèlè river practicable for floating. Several other

streams in the plains were also cleared and made floatable.

Valuation surveys were extended, the total area over which trees had been counted being 59·46 square miles at the end of 1867. Revised plan page 8

An area of 182·5 square miles was topographically surveyed in the Tharrawaddy division, chiefly with reference to the selection of tracts for protection against taungya-cultivation.

Proposals were submitted for the reservation of about 42 square miles of forest in the Tharrawaddy and Prome divisions, but nothing was finally settled in that respect. Progress Report, 1868-69, page 11.

III.—Working plans of 1868 69 to 1872-73.

In 1868 a new working plan was framed by Mr. Brandis, which provided for the working of the forests from 1868-69 to 1872-73. It applied to the same tracts as the plan of 1862, with the exception of the Upper Salween forests, 106 square miles in extent, which had been leased out and were consequently excluded.

The total number of first class trees in 1868 was estimated at 934,000. Revised plan page 7

From the valuation surveys carried out between 1856 and 1867 it was found that the average growing stock per 100 acres was—

First class teak,	6 ft girth and above	..	170	Page 8
Second ,, ,,	4½ ft to 6 ft girth	..	112	
Third ,, ,,	1½ ft. to 4½ ft. ,,	..	191	
Fourth ,, ,,	below 1½ ft. ,,	..	821	

But it was certain that in the earlier surveys, which were of considerable width, the greater number of small trees escaped observation, so that the proportion of younger classes was made to appear lower than it should have done.

This view was borne out by surveys made in 1868, extending over 1,307 acres, which gave the following trees per 100 acres :—

First	class	..	..	149
Second	,,	..	..	120
Third	,,	..	..	418
Fourth	,,	..	..	1,001

Page 8

The average rate of growth of teak trees was ascertained by considering the annual rings on 50 different trees, and was found to be as follows :—

				Years.	
Age at	1½ ft.	girth	..	.. 19	Page 9
Do.	3 ft.	,,	..	.. 46	
Do	4½ ft	,,	..	.. 88	
Do.	6 ft.	,,	..	.. 160	

It was estimated that during the first hundred years the minimum number of trees that would become marketable would comprise the whole of the first and second classes of trees and $\frac{4}{10}$ths of those in the third class, and this calculation applied to the estimated growing stock of each forest division, and, divided by 100, gave the possible annual outturn ; but in order to be on the safe side, only $\frac{2}{3}$rds of this quantity were entered in the working plan as the number of trees to be girdled annually.

The working plan also provided for the further examination of the forests and for the collection of statistics regarding the rate of growth, &c.; and general proposals were made for the reservation of forests and for their protection and improvement.

The timber actually girdled during the five years, 1868-69 to 1872-73, compared with that provided for in the working plan, is thus shown:—

Division.	Trees to be girdled as per plan.	Trees actually girdled.
Rangoon	12,000	12,015
Tharrawaddy	20,000	20,117
Prome	6,000	6,000
Sittang	12,000	8,979
Salween	8,000	9,000
Total ..	58,000	56,111

To the above must be added 9,707 tree illicitly felled in the Sittang division, bringing up the total number of trees girdled to 65,818, or 7,818 in excess of that provided for in the plan.

IV.—No working plan in force.

1773-74 to 1877-78.—In 1872 and 1873 Mr. Baden Powell, then Officiating Inspector-General of Forests, visited British Burma and drew up a scheme for the future working of the forests. He proposed to institute three classes of reserves, to be termed special, ordinary, and district reserves.

The first, which were only to be of limited area, were to comprise all the richest and most accessible teak localities, as well as certain forests set apart for the production of cutch trees or fuel.

Ordinary reserves were to include the bulk of the hill forests in the province, and were to be maintained primarily for climatic purposes, but also to supplement the timber-supply of the special reserves.

District reserves were to be what are now called village forests, that is, forests maintained to supply the neighbouring villages with fuel, building timber, and grazing land.

For the special reserves, elaborate working plans were suggested, under which the forest should be gradually converted into regular high forest with segregated age classes.

For the ordinary reserves a simpler plan was projected. The forests in each division were to be divided into 10 blocks and each block into 10 compartments, one of which, in each division, was every year to be opened to a clear felling of all first class trees.

In accordance with these proposals special reserves were taken up and large areas demarcated as ordinary reserves; but the latter class never received any legal sanction. The system was practically abandoned

in 1875 by Mr. Ribbentrop, then Conservator of Forests, British Burma, and finally, after a tour of inspection made by Mr. Brandis in 1876, it was decided to revert to the original plan and establish only one class of reserved forest. The special reserves remained what they practically were,—Government reserved forests,—and the tracts which had been proposed under the second denomination have, for the most part, been declared reserved forest, the rights therein of Karens and others being strictly defined.

On expiry of the working plan of 1868 girdling was continued on a moderate scale for three years, when it was suspended under orders of the Government of India, with the exception of such timber as might be required locally by the Public Works Department.

The trees girdled during this period are thus shown:—

Year	Pegu circle.	Tenasserim circle.	Total.
1873 74 ..	9,026	2,000	11,026
1874 75 ..	1,424	2,340	3,764
1875 76 ..	3,576	..	3,576
1876 77 ..	450	..	450
Total ..	14,476	4,340	18,816

V.—Forests excluded from the Working Plans of 1856 and 1868.

The forests west of the Irrawaddy, which were not included in the above plans, were leased from 1862 to 1874 to private parties, who had permission to girdle trees 5 feet in girth and upwards. They were then worked for two years by a contractor, who undertook to fell 4,000 green trees in the Mindon forests and bring them out on Government account, 5,049 logs, measuring 4,981 tons, being thus removed. Since then only dead timber has been worked out. The total yield of the Western forests to the end of 1878-79 amounted to 64,945 tons.

The Upper Salween forests, with the exception of Methalauk, which was resumed by Government in 1871, were worked first by permit-holders and afterwards by lease-holders from 1860 to 1874. Their total yield to the end of 1878-79 was 33,332 logs, containing 26,661 tons.

The Ataran and Pandaw forests are still partly in the hands of lease-holders. (The Pandaw lease was cancelled on the 1st April 1884 in consequence of malpractice on the part of the lease-holder).

The leases will, for the most part, expire on the 1st October 1896, but that of the Mitigeik and Mitigeik-Kodugwe forests has still 64 years to run.

The total yield of these forests to the end of 1878-79 has been—

	Tons.
Ataran	30,064
Pa daw	22,698
Total ..	52,762

VI.—Forests worked according to Mr. Brandis' "Suggestions" of 1879.

1879-80 to 1883-84.—In 1879 the work of selecting and demarcating reserves having considerably advanced, and there being signs of a falling off of the supply of dry timber left in the forest, sanction was obtained to the re-commencement of girdling operations; and Mr. Brandis, during a visit to the province in that year, drew up a report on the forests, with suggestions for their future management.

The general question of forest conservancy in British Burma was first dealt with. After discussing the principal forest products of the province and the requirements of trade, the necessity was pointed out of maintaining forests both for climatic purposes and for providing the people with a certain supply of timber and grass. It was shown that though the annual surplus revenue for the past 15 years averaged Rs. 5,10,739 the expenses of forest conservancy were constantly increasing, and that, owing to reckless cutting in former years, teak must in the immediate future be worked out most sparingly; so that, in order to cover the cost of forest conservancy, it would be necessary to levy a revenue on all timber and forest produce extracted for purposes of trade.

Chapter II gave a history of forest legislation in British Burma, and showed the necessity of having a special Forest Act passed for that province.

Chapters III and IV dealt with reserved forests, and contained a brief account of each of the main blocks, showing their past yield and future prospects. As matters then stood, the total area of reserves proposed and sanctioned was 3,474 square miles. Of this, not more than 2,000 square miles could be regarded as teak-producing: consequently, in order to maintain the mean annual yield at the same figure as during the past 23 years, *viz.*, at 35,000 tons, an annual outturn of 17·5 tons per square mile was required.

The next chapter treats of the protection and improvement of the forest. It was pointed out that the imports from Foreign States into British Burma is likely to fall off by degrees, and that the aim of the Forest Department must be to increase the proportion of teak in the forests, so as to enable the demarcated area to meet all requirements.

The cost of fire-protection amounted to Rs. 91 per 1,000 acres, the protected area being 96,413 acres. It was proposed to increase this area; but, in order to reduce the cost, it was recommended that no new tracts should be taken in hand but that those at present protected should be gradually extended. Cultural operations were to be restricted to fire-protected areas, and even-

tually the following standard was to be worked up to :—

	Acres.			Rs.
Fire-protection ..	200,000	annually,	@ 75°/₀₀ ..	15,000
Regular plantation	200	,,	,, 40 ,, ..	8,000
Taungya ,,	1,000	,,	,, 14 ,, ..	14,000
Other works ..	..	,,	.. ..	8,000
			Total ..	45,000

Chapter VI contained proposals for the future working of the forests as regards teak only.

In the Pegu circle it was proposed to girdle 15,000 trees annually for at least five years, distributed as follows :—

Location.	Area reserved or proposed for reservation.	Number of trees to be girdled annually.
	Sq. miles	
Reserves on the west side of the Pegu Yoma in the Tharrawaddy and Prome divisions.	944	5,500
Sittang valley	1,006	4,000
Remaining reserves ..	881	1,000
In forests not likely to be reserved	..	4,500
Total ..	2,831	15,000

In the Tenasserim circle it was proposed to girdle 1,000 trees annually, pending completion of forest reservation. It was suggested that three working circles should be established,—one for the West Salween forests, comprising the Bilin, Dondami, Yunzalin, and Upper Salween forests; a second for the Thoungyin; and a third for the Government forests in the Ataran.

For the next twenty years cuttings were to be restricted to such old marketable trees as could be removed without impairing the condition of the forest; but it was recommended that in the Thoungyin all girdling should be suspended altogether, pending the completion of reserves, and that in the Ataran no girdling should be carried out in reserves which contain areas held under 30-years' leases.

The principles on which the selection of trees to be girdled should be made were then detailed, and it was suggested that valuation surveys and the preparation of sketch maps should proceed simultaneously with the girdling.

The removal of obstructions from floating streams was to be steadily continued, and proper precautions were to be taken to protect bridges from injury from floating timber.

Chapter VII dealt with the organization of the department; and the remaining Chapters VIII to XII contained a detailed account of each forest or plantation separately, with proposals for their future treatment.

The following summary shows the forest work carried out since 1879-80 on the basis of Mr. Brandis' "Suggestions":—

Reservation of Forests.

The area of forests reserved on the 1st April 1884 was 3,758 square miles (including 412 square miles of "Karen areas") against 1,410 square miles on the 1st April 1879.

Protection from Fire.

The total area actually protected from fire in 1883-84 was 167,004 acres out of 183,207 attempted against 71,545 acres protected and 74,867 attempted during 1878-79.

The cost of fire-protection in 1883-84 amounted to Rs. 13,971, or Re. 0-1-4 per acre actually protected.

Regular Plantations.

The area of regular plantations was increased from 3,339 acres on the 1st April 1879 to 3,635 acres on the same date in 1884.

The total cost rose from Rs. 2,87,585 to Rs. 3,26,684 during the same period.

Taungya Plantations.

These were increased from 2,194 acres on the 1st April 1879 to 6,459 acres on the 1st April 1884, the increase being at the average rate of 853 acres per annum.

Total cost of taungya plantations on the 1st April 1884 was Rs. 58,258, or a little over Rs. 9 per acre.

Other Cultural Operations.

Apart from experiments with exotics, about Rs. 23,000 have been expended upon the improvement of forests.

The most important operations were the sowing of teak and a little cutch on areas on which bamboos had died after flowering. They were cleared with fire. These operations extended in the Tharrawaddy division over the following areas: —

			Acres
Bwet reserve	..	..	600
Nyanlè reserve	..	..	830
Pazingyè reserve	..	..	125
Kadinzauk reserve	..	..	300

Similar sowings on a small scale were made in the Chaungzauk reserve of the Prome division, and in the Kangyi, Mokka-Bilin, Kyaukkyidaung, and Gwedaukkwin reserves of the Tharrawaddy division. In the Toungoo division about Rs. 900 were spent in planting an evergreen fire-trace.

Girdling.

In the Pegu circle it was found that the quantity of timber outside reserves had been very much under-estimated, and that it was possible to kill a larger number than that proposed without intrenching on the reserves.

The quantities actually killed were as follows :—

Year.		In reserves or areas proposed for reservation	In areas not likely to be reserved	Total
1879 80 / 1880-81	..	7,533	30,648	38,181
1881-82	..	200	16,421	16,621
1882-83	..	3,690	11,294	14,984
1883-84	..	6,700	9,605	16,305
Total	..	18,123	67,968	86,091

In Tenasserim the number of trees girdled was as follows—

Year			Trees killed.
1878 79	..	..	934
1879-80	..	..	605
1880-81	..	..	1,350*
1881-82	..	..	2,229
1882 83	..	..	2,612
1883-84	...	..	*Nil*
	Total	..	6,985

It is believed that about half this timber (inclusive of 1,021 trees girdled by mistake in the Mithawe reserve in 1882-83) was situated in reserves, or in areas likely to be taken up as such.

Improvement of Waterways and Roads.

These have been carried out wherever necessary. The principal obstructions removed were in the Mintha, Tavoy, Mèkè, and Thonzè Kodugwe streams. In the Sittang snags were removed, and several streams were cleared in the Tharrawaddy plains.

Revenue.

The surplus revenue for the six years has been as follows :—

			Rs.
1878-79	..	..	4,19,161
1879 80	..	..	4,26,700
1880-81	..	..	8,04,044
1881-82	..	..	10,81,581
1882 83	..	..	12,74,941
1883-84	..	..	12,91,452

Surveys and Working-plans.

TENASSERIM CIRCLE.

In 1880-81 a number of linear valuation surveys were carried out in the East Salween and Ataran forests.

In 1881-82 and 1882-83 linear surveys, supplemented with a careful route survey with compass and chain, was executed over an area of 3,308 acres in the Upper Tavoy forests. The total length of the survey was 206 miles.

In the latter year the East and West Salween forests were divided each into five blocks, which are to be thrown open in succession for a period of five years for the girdling of all first class marketable teak within and without the reserves, selection within the reserves being subject to favourable reproduction and presence of seed-shedding trees. Thus, a period of 25 years in each will be given for the extraction of all first class marketable trees throughout those forests, sufficient, it is assumed, to allow of trees of the second class attaining market-

* Less 41 trees in Attaran not under the Working Plans.

able size before girdling is resumed in any one part.

The Upper Tenasserim forests were examined by Mr. Palmer in 1883-84. The valuable trees here are thingan and pyinma; but it was found that they existed only in comparatively small quantities, and that the rocky nature of the river rendered their extraction impracticable.

PEGU CIRCLE.

In the Pegu circle the topographical survey of the forests was commenced during 1881-82 by the Cadastral Survey Department. In the Tharrawaddy division 40 square miles in the Thônzè and Kun-Bilin were mapped on a scale of 4 inches to the mile.

In the Rangoon division the Hmawbi and Kyetpyugan reserves were surveyed and mapped on the 16-inch scale, and the outlying reserves in the plains of both the above divisions have, it is believed, been taken up.

The work is now being continued by the Topographical Survey Department in the Tharrawaddy division, the maps of the reserves being on the 4-inch scale and of the forests outside reserves on the 2-inch scale.

During 1882-83 sanction was obtained for the formation of a Provincial Working Plans Branch.

The first season's work was carried on in the fire-protected portion of the Mokka and Bilin reserves, and the data necessary for the construction of a working plan were collected for an area of about 24 square miles.

Owing to the absence of any correct map of the reserve, the work of laying down compartments was attended with great difficulty, and progress was consequently very slow. The valuation of the forest was carried out by counting the trees on linear survey plots of a uniform width of two chains, carried straight across country, and aggregating upwards of 32 miles in length.

The age of dominant trees, as ascertained by borings with Pressler's growth-gauge, was found to be as follows:—

Diameter. Inches.	In moist forest. Years.	In dry forest. Years.
12	50	44
18	76	73
24	105	110
30	139	167

The valuation survey showed that three were about 50 first class and 106 second class teak trees per 100 acres, and it was estimated that at least 200 trees might be girdled annually without injury to the forest; and this is the amount which has been actually killed annually since 1879-80 in order to provide work for a Karen contractor who is also engaged in plantation work in this reserve.

A complete working plan could not be drawn up till the whole of the Môkka and Bilin reserves have been surveyed and examined; but the compartments in which

girdlings were to be carried out during the next few years were indicated.

During the year 1883-84, in the Thônzè reserve, an area of 109 square miles was taken in hand, and by the end of the season sufficient data had been collected to complete a working plan for the whole forest.

Maps on a scale of 4 inchs to a mile (partly proof-sheets and partly tracings of field-sheets) were supplied by the Topographical Survey.

The whole area was first divided into five blocks, which were again sub-divided into compartments, the boundaries of both being invariably natural features.

The compartments were demarcated by blazed lines and trees stamped with a hammer mark, and at the salient angles mounds with hard wood posts were erected, on which were nailed iron plates stamped with the numbers of the adjacent compartments. Where conveniently situated, large pyingado and other suitable trees were used instead of posts, the numbers being nailed on to blazes cut in the hard wood.

The areas of the compartments varied according to the forest. In the fire-traced portion, which is being planted up under the teak-toungya system, they average only 293 acres in extent; in ordinary teak-producing forest 514 acres; while in compact evergreen forest, and in the Karen area, which is mostly worthless ponzo, they average 514 and 2,370 acres respectively.

The whole forest is roughly classified as follows:—

	Acres.
Ponzo, or other unproductive forest in the Karen area	8,200
Evergreen forest	8,000
Inaccessible forest	5,000
Teak forest	48,534
Total ..	69,734

All except the last may be regarded as excluded from the working plan.

The teak forest is of two classes, moist and dry; and from numerous borings it was found that the age of dominant teak trees in the two classes averaged as follows:—

Diameter. Inches.	Moist forest age. Years.	Dry forest age Years.
12	49	49
18	72	86
24	106	138
27	..	166
30	144	..

In dry forest teak trees generally tend to become hollow after they have attained a girth of 6 feet, or even earlier.

Probably due to forest fires. B.R.

In moist forest, although trees often continue sound until they reach a girth of upwards of 9 feet, the growth is very slow, and trees with a girth of 7 feet appear to fulfil most of the requirements of trade. The size of marketable trees has therefore been fixed at 6 feet and 7 feet girth for dry and moist forest respectively; but provision has been made for reserving any particularly fine growing and

favourably situated trees for the production of timber of special dimensions; while, on the other hand, trees which, though not of standard size, have obviously attained their full maturity will be girdled, provided they are not required for regeneration purposes. Dry forest considerably predominates in the Thônzè reserve; and, as the rate of growth is liable to be retarded by temporary suppression and other causes, the rotation could not safely be fixed at less than 150 years.

The average rates of growth of teak trees in different forests in Burma, as ascertained in previous years by counting the annual rings on logs and stumps are, for the sake of comparison, given below:—

		Mean age at 6 ft girth. Years.
Tharrawaddy division.	1. Tapan.—In the plains: sandy, alluvial soil.	55
	2. Padinbin.—Low hills: hard, stiff loam; sandstone near surface. Dendrocalannus strictus (Myinwa) undergrowth.	153
	3. Bwet forest.—Low hills: light, sandy loam. Kyathaungwa and Thaikwa undergrowth.	94

		Age-at			
		18 ins.	3 ft.	4 ft. 6 ins.	6 ft.
		Diameter.			
Tharrawaddy division.	4. Shwèlè.—Low hills: light, sandy loam. Myinwa and Kyathaungwa	25	27	98	152
	5 Bawbin hills.—Sandstone	23*	58	99	152
	6. Taungchaung hills.—Sandstone	26	52	89	136
	7. Môkka hills.—Sandstone	26	57	89	139
	8. Thônzè upper hills.—Sandstone	26	54	77	107
Rangoon division.	1. Upper Zamayi hills.—Gravelly loam on sandstone ..	27	55	84	119
	2. Lower Zamayi hills	17	45	76	115
Sittang division.	1. Myohla.—Undulating ground, and low hills on sandstone and laterite	24	52	81	142
	2. Bunbyè and Gwèthè.—High ground and slopes on loam formed from decomposition of gneiss and laterite	22	54	78	124
	3. Kanni.—High ground and slopes on loam formed from decomposition of gneiss and laterite	22	42	67	108
	4. Thaukyegat.—High ground and slopes on loam formed from decomposition of gneiss and laterite	22	51	77	118
	5. Samo.—In the plains on decomposed laterite	20	38	61	89
	6. Mon.—Undulating ground on laterite	12	29	53	88

The number of countings of which the above are averages is not stated.

To ascertain the growing stock, sample areas, the boundaries of which could be readily traced both on the map and on the ground, were selected in different classes of forest, and all the trees standing on them were counted out.

The average number of trees per 100 acres on all the plots in each compartment or group of compartments similar in character was then ascertained and the results applied to the areas of which the plots were a sample, deduction being made for inaccessible or unproductive areas.

The total number of teak trees in the workable parts of the reserve is estimated as follows:—

First class	24,741
Second class	37,869
Third class	89,467
Dominant fourth	192,827

But as the whole of these are not likely to reach maturity, it has been assumed that

* Probably moist forest.

the available outturn during the rotation will be—

All first class trees	..	.. 24,700
⅘ths second class trees	..	.. 30,300
⅘ths third class trees	..	.. 53,700
⅘ths fourth class trees	..	.. 77,100
	Total	.. 185,800

The rotation was, as above stated, fixed at 150 years, and has been divided into five periods of 30 years each.

Taking the rate of growth into consideration, it is found that of the trees estimated to reach maturity there will be available during the next 60 years—

All the first class	..	.. 24,700
All the second class	..	.. 30,300
And about ⅕th of the third class		.. 6,700
	Total	.. 61,700

leaving for the remaining periods 248,000 trees plus the produce of the plantations.

During the first period it is proposed to girdle 30,000 trees, or at the rate of 1,000 trees per annum, subject to the condition that only trees of marketable dimensions, as above defined, be killed, and that the girdlings will be carried out with due regard to the conservative treatment of the forest. But in order to guard against exhausting the whole available supply at a rate greater than that proposed, a contingency which would occur in case the stock should prove to have been overestimated, the girdlings of each group of five years have been allotted to definite areas, beyond which they will not be allowed to extend even should the 5,000 trees not be found.

The results of each girdling will be entered into a control-book, by means of which it will be possible to check both the future working and the accuracy of the previous estimates.

According to the above plan, the whole of the Thonzè forest will be girdled over once only during 30 years. This is open to the objection that parts of the forest in which trees have not been killed since 1858 may remain unworked for a further period of 30 years.

To obviate this, an alternative girdling scheme was submitted, which provided for the whole forest being girdled over twice during the first period of 30 years. According to this plan the period was divided into two sub-periods of 15 years each and the forest into five girdling areas, to each of which the number of trees to be killed during the six years has been allotted. Half this number will be girdled during the first and the remainder during the last half period.

The above is the most important portion of the plan as regards exploitation.

As regards improvement, suggestions have been made for the gradual extension of fire-protection, for the increase of taungya-plantations, and for other cultural works as opportunity occurs, as well as for the removal of certain rocks obstructing the waterways.

In addition to the working plan operations above described, the following older maps and valuation survey records are still available for the compilation of preliminary working plans :—

Prome Division.

A map of the Eastern Prome forests on a scale of 2 inches = 1 mile, fairly correct, on which can be traced the greater part of 23·65 square miles of linear valuation survey.

Any girdling carried out in the reserves since those surveys were made can be allowed for, so that the data obtained should still hold good.

Similar work was done in the Western Prome forests, but contractors have since been allowed to girdle, and taungya-cultivators have made a considerable change in the forest, so that the information is now useless.

Tharrawaddy Division.

A number of surveys were made in the Shwèlè forests between 1868 and 1873, but it is doubtful whether they are now of any value.

The following maps are said to be available :—

Rangoon Division.

Upper Paunglin forests, 132 square miles.. ..	2 inches = 1 mile.
Ôkkap and Magayi forests, 59 square miles ..	3 inches = 1 mile.

Sittang Division.

Myohla, Daunglangya, Ewè, and Nga Kyat forests, 97 square miles ..	2 inches = 1 mile.
Bunbyè and Ewèthè forests, 56 square miles ..	2 inches = 1 mile

Salween Division.

Sinswè forest, Yunzalin district, 14 square miles..	2 inches = 1 mile.
Bilin forest, 10 square miles	2 inches = 1 mile.
Dôndami forest, 44 square miles	2 inches = 1 mile,

ANNUAL FORM No. 49 [PRESCRIBED].—*Area of Reserved Forests in the Tenasserim and Pegu Circles for 1884-85.*

Division or range	Civil district or territory	Name of forest	Area on 1st April 1884		Added during the year	Excluded or transferred to other heads	Area on 31st March 1885		No. and date of notification of addition or transfer	Remarks
			Acres	Equivalent in square miles	Acres	Acres.	Acres.	Equivalent in square miles		
TENASSERIM DIVISION — West Salween	Salween	Wamu chaung	1,920	3	...	...	1 920	3		
		Sinawè	8,960	14	..	...	8,960	14		
		Kahilu	9,600	15	...	.	9,600	15		
		Minnannwè	3,840	6	...	..	3,840	6		
		Mewaing	7,360	12	..	..	7,360	12		
		Upper Methalauk	8,960	14	..	...	8,960	14		
		Lower Do.	3,840	6	...	..	3 840	6		
	Shwegyin	Bilakatkyi	8,320	13	..	..	8,320	13		
		Onkangyi	8,320	13	...	...	8 320	13		
	Amherst	Tagalaung	5,120	8	...	...	5,120	8		
	Salween	Pa chaung	25,600	40	...	...	25,600	40		
		Dagwin	6,400	10	..	...	6,400	10		
		Kamawkala	5,760	9	..	..	5,760	9		
East Salween	Amherst	East Mèpalè	38,400	60		..	38,400	60		
		Mèpalè	25,600	40	...		25 600	40		
		Metkanè	19,200	30	...	1,920	17,280	27	No. 5, dated 12th January 1885	
		Kyaukket	12,160	19	...		12,160	19		
		Mègala	6,400	10	..		6 400	10		
		Winsaw	6,400	10	...		6,400	10		
		Mithawe	12,160	19	..	.	12,160	19		
		South Myawadi	150	..	.	.	150	..		
		Onkarang	33,920	53	..	..	33,920	53		
		Gawlè	37,120	58	..	..	37,120	58		
		Balèdo	1,600	2	...	.	1,600	2		
Ataran	Amherst	Dali	7,680	12	..	...	7,680	12		
		Pakabo	20,480	32	..	.	20,480	32		
		Natchaung	5,760	9	..	.	5,760	9		
		Gôngyi	27,520	43	..	..	27,520	43		
		Ma-u	8,960	14	..	..	8,960	14		
		Mègwa	12,160	19	.	.	12,160	19		
		Thinganyinaung	5,760	9	...	.	5,760	9		
South Tenasserim	Tavoy	Kyunchaung	10,880	17	.	..	10,880	17		
		Mintha	64,000	100	...	...	64,000	100	.....	Includes 12 square miles of Karen areas.
		TOTAL TENASSERIM CIRCLE	460,310	719	...	1,920	458,390	716		
DIVISION — Myede range	Thayetmyo district	Tindaw	2,880	5	...	...	2,880	5		
		Sasuwa	4,800	7	...	...	4,800	7		
		Thayetmyo East Yoma	81,920	128	...	...	81,920	128		
Kama range	Ditto	Saingdo	1,216	2	..	..	1,216	2		
		Thabala	6,080	9	.	...	6,080	9		
		Mindôn Yoma	166,400	260	...	..	166,400	260		
		Ngawet	3,200	5	...	..	3,200	5		
		Total Thayetmyo	266,496	416	...	..	266,496	416		

PROME	NAWIN RANGE	Prome district	Thitkat and Ayodaung	2,944	5	...	...	2,944	5		
			Thayetchaung and Nyaungbindet	4,864	8	...	..	4,864	8		
			Kywèmido	2,442	4	...	...	2,442	4		
			Nabèbyu	3,840	6	...	...	3,840	6		
			Shwelaung and Pwègin	13,120	21	...	...	13,120	21		
			Gwegyo	6,720	10	...	...	6,720	10		
			Chaungzauk	9,408	15	...	...	9,408	15		
			Ngalusan	700				700			
			Shwekyundaw	256	2	...	...	256	2		
			Prome plantation	73				73			
			Prome East Yoma	97,600	152	...	...	97,600	152	.....	Includes Karen area of 43 square miles.
			Tônye fuel reserve	12,224	19	...	...	12,224	19		
			Pauktaw do.	4,672	7	...	...	4,672	7		
			Sinmizwè do	6,400	10	...	...	6,400	10		
			Total	165,263	259	...	...	165,263	259		
			Total Prome	431,759	675	..	..	431,759	675		
			Karen areas	27,520	43	...	...	27,520	43		
			Total area free of taungya privileges.	404,239	632	...	...	404,239	632		
THARRAWADDY DIVISION.	SHWELE RANGE.	Prome district	Shwele Yoma	33,600	52	...	...	33,600	52	.....	Includes Karen area of 12 square miles.
			Dawlè	1,800	3	...	...	1,800	3		
			Padetmyaung	4,500	7	...	...	4,500	7		
			Kyaukkyitaung	2,600	4	...	...	2,600	4		
			Bwet	2,900	5	..	...	2,900	5		
			Gwedauk Kwin	10,200	16	..	...	10,200	16		
			Kyibyu	2,200	3	...	...	2,200	3		
			Kadinzauk & Kadinthônzin	3,500	6	...	...	3,500	6		
			Shabaung	2,200	3	...	...	2,200	3		
			Tarokmaw and Inma	24,576	38	..	...	24,576	38	..	Partly in Tharrawaddy district.
	BAWBIN RANGE.	Tharrawaddy district	Taungnyo Yoma	88,320	138	...	...	88,320	138	..	Includes Karen area of 36 square miles.
			Upper Padinbin	600	1	..	...	600	1		
			Lower Padinbin	200	..	..	...	200	..		
			Tapau	4,260	7	...	...	4,260	7		
			Nyanlè	5,800	9	...	...	5,800	9		
			Kanni	600	1	...	...	600	1		
			Pazingyi	1,300	2	...	...	1,300	2		
			Taungnyomyo	4,780	8	...	..	4,780	8		
			Minbu Bawbin	83,200	130	...	...	83,200	130	...	Includes Karen area of 25 square miles.
			Upper Payagyi	1,000	2	...	...	1,000	2		
			Lower Payagyi	600	1	...	...	600	1		
			Thitcho	1,400	2	...	...	1,400	2		
			Kangyi	3,800	6	.	...	3,800	6		
			Gwedauksan	1,300	2	...	...	1,300	2		
			Chaungwa	700	1	...	...	700	1		
			Myodwin	38	.	...	...	38	...		
			Chaungzauk (fuel)	3,700	6	...	...	3,700	6		
			Carried forward	289,874	453	...	...	289,874	453		

ANNUAL FORM No. 49 [PRESCRIBED].—*Area of Reserved Forests in the Tenasserim and Pegu Circles for 1884-85*—(concluded).

Division or range.	Civil district or territory.	Name of forest.	Area on 1st April 1884.		Added during the year.	Excluded or transferred to other heads	Area on 31st March 1885.		No and date of notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres	Acres.	Equivalent in square miles.		
THARRAWADDY DIVISION—(concluded).		Brought forward ...	289,874	453	..	..	289,874	453		
Gamôn range.	Tharrawaddy district..	Minhla, Gamôn, and Taung	89,600	140	...	..	89,600	140	..	Includes Karen area of 47 square miles.
		Taukkyan	4,640	7	..	...	4,640	7		
		Thakolan	960	1	..	..	960	1		
		Chaungngagôn	300	...	...	...	300	...		
		Satpôk (fuel)	4,700	7	...	...	4,700	7		
		Sitkwin (do.)	2,700	4	...	..	2,700	4		
Bilin range	Ditto ...	Môkka	90,900	142	...	15,131*	22,406	35	.....	Includes Karen area of 10·98 square miles.
		Kadin Bilin					53,363	83	.....	Includes Karen area of 28·33 square miles.
		Kôn Bilin	12,800	20	3 187*	...	15,987	25		
		Thônze	69,734	109	...	..	69,734	109	.....	Includes Karen area of 14·60 square miles
		Thindawyo	6,400	10	...	...	6,400	10		
		Total Tharrawaddy ..	572,608	893	3,187	15,131	560,664	874		
		Karen areas ...	105,600	165	1,280	...	106,880	167		
		Total area free of taungya privileges.	467,008	728	1,907	15,131	453,784	709		
DIVISION. Paunglin range.	Hanthawaddy district .	Kyetpyugan	940	2	...	...	940	2		
Pegu range..	Ditto ..	Kadat	64,000	100	..	...	64,000	100		
Kinbadi range.	Ditto ...	Magayi	12,800	20	...	...	12,800	20		
			80,000	125	...	...	80,000	125	.....	Includes Karen area of 13 square miles.
Hlaing range.	Ditto ..	Ôkkan	59,520	93	...	...	59,520	93		
		Hlaing Yoma								
		Total ...	217,260	340	...	...	217,260	340		
		Fuel Reserves.								
Ditto ...	Ditto ...	Hmawbi	1,846	3	...	...	1,846	3		
		Kyun	8,600	13	...	...	8,600	13		
		Thitpyat	3,100	5	...	...	3,100	5		
		Thabyu	8,000	13	..	...	8,000	13		
		Total ...	21,546	34	...	...	21,546	34		

RANGOON	PEGU RANGE...	Pegu district ...	Upper Zamayi	145,920	228	...	...	145,920	228	.....	Includes Karen area of 88¼ square miles.
			Lower Zamayi	112,000	175	...	...	112,000	175	.....	Includes Karen area of 18¼ square miles.
			Letpan	10,880	17	...	...	10,880	17		
	PAUNGLIN RANGE.	Ditto ...	Paunglin	68,480	107	...	...	68,480	107	.....	Includes Karen area of 7 square miles.
			Total ...	337,280	527	...	...	337,280	527		
			Total Rangoon ...	576,086	901	...	...	576,086	901		
			Karen areas ...	81,280	127	..	..	81,280	127		
			Total area free of taungya privileges.	494,806	774	...	...	494,806	774		
TOUNGOO DIVISION.	THAGAYA RANGE.	Toungoo	Yanè	5,800	9	...	...	5,800	9		
			East Swa	17,280	27	...	...	17,280	27		
			Kyaukmagin	20,480	32	...	...	20,480	32		
			Saing	64,640	101	...	...	64,640	101		
			West Swa	...	...	38,400	...	38,400	60	No. 53F., dated 17th Oct. 1884.	
			Lônyan	...	...	10,880	...	10,880	17	No. 55F., dated 17th Oct. 1884.	
			Sabyin	...	...	26,240	...	26,240	41	No. 54F., dated 17th Oct. 1884.	
			Gwêthè	..	...	33,280	...	33,280	52	No. 64F., dated 20th Nov. 1884...	Not 79 square miles as notified.
	ZEYAWADI RANGE.	Do.	Bôndaung	25,600	40	...	...	25,600 *	40		
			Kabaung	220,800	345	...	...	220,800	345	.. ..	Includes Karen area of 65·5 square miles.
	BÔNMADI RANGE.	Do.	Pyunchaung	3,400	5	...	...	3,400	5		
			Kauni	...	...	280	...	280	...	No. 51F., dated 25th Augt. 1884.	
			Gônwè	...	...	6,400	...	6,400	10	No. 70F., dated 18th Dec. 1884.	
	KYATHAUNG-DAUNG RANGE.	Do.	Thandaung	..	...	12,025	...	12,025	19	No. 23F., dated 31st March 1885.	
			Total Toungoo ..	358,000	559	127,505	...	485,505	758		
			Karen areas ...	41,920	65	...	...	41,920	65		
			Total free of taungya privileges.	316,080	494	127,505	...	443,585	693		
SHWEGYIN DIVISION.	KYAUKKYI RANGE.	Shwegyin	Binbyè	6,400	10	...	...	6,400	10		
	SITTANG RANGE.	Do.	Kyundaung	960	1	..	...	960	1		
			Kyundaung extension ...	...	...	3,840	...	3,840	6	No. 13F., dated 22nd May 1884.	
			Total Shwegyin ...	7,360	11	3,840	..	11,200	17		
			Total area free of taungya privileges, Pegu Circle.	1,689,493	2,639	133,252	15,131	1,807,614	2,823		
			Karen areas ...	256,320	400	1,280	...	258,880	402		
			GRAND TOTAL BRITISH BURMA	2,142,123	3,346	133,252	17,051	2,253,224†	3,527		

* Alterations consequent on survey.

† The equivalent of this is 3,528 square miles, but as fractions are omitted the figure in the next column is less by 1 square mile.

ANNUAL FORM No. 50 [PRESCRIBED].—*Statement showing the Area of Plantations in the Tenasserim Circle for 1884-85.*

Division.	Name of plantation.	On 1st April 1884.		Added during 1884-85.		On 31st March 1885.		Remarks.
		Area.	Cost.	Area.	Cost.	Total area.	Total cost.	
		Acres	Rs.	Acres	Rs.	Acres	Rs.	
	Regular plantations.							
ATARAN ...	Thinganyinaung ...	16	14,993	...	...	16	14,993	
SALWEEN ...	Shwegun ...	5	3,787	...	...	5	3,787	
	Kolôn Island ...	2	3,539	...	...	2	3,539	
	Total ...	23	22,319	...	...	23	22,319	
	Fully stocked teak plantations (taungyas).							
WEST SALWEEN ...	Sinzwè ...	541	3,767	60	723	601	4,490	
	Wamu ...	24	181	15	104	39	285	
	Kahilu ...	13	146	7	225	20	371	
	Onkangyi ...	44	371	69	339	113	710	
	Bilakatkyi ...	21	81	...	...	21	81	
	Minnannwe ...	51	481	...	35	51	516	
	Mewaing ...	115	799	31	283	146	1,082	
ATARAN ...	Kyunchaung ...	34	670	9	212	43	882	
	Dali ...	62	321	9	184	71	505	
	Pakabo ...	3	11	...	3	3	14	
EAST SALWEEN ...	Mèpalè West ...	...	...	32	290	32	290	
	Total ...	908	6,828	232	2,398	1,140	9,226	
	Fully stocked other plantations (taungyas).							
WEST SALWEEN ...	Kahilu (thitka) ...	6	...	...	47	6	47	
	Total ...	6	...	...	47	6	47	
	Indifferently stocked taungya plantations (teak).							
WEST SALWEEN ...	Sinzwè ...	357	...	4	356	361	356	
	Wamu ...	10	...	...	13	10	13	
	Kahilu ...	19	...	...	229	19	229	
	Onkangyi ...	8	...	...	...	8	...	
	Bilakatkyi ...	14	...	...	...	14	...	
	Minnannwe ...	62	...	...	35	62	35	
	Mewaing ...	63	...	...	...	62	...	
ATARAN ...	Dali ...	16	...	13	15	29	15	
	Kyunchaung ...	47	...	4	74	51	74	
EAST SALWEEN ...	Mepale ...	43	140	10	25	53	165	
	Total ...	639	140	31	747	670	887	
SOUTH TENASSERIM ...	Mergui plantation (not teak) ...	108	8,274	...	696	108	8,970	
	Cultural operation ...	...	239	...	10	...	249	
	Total ...	1,684	37,800	263	3,898	1,947	41,698	

ANNUAL FORM No. 50 [PRESCRIBED].—*Statement showing the Area of Plantations in the Pegu Circle for 1884-85.*

Division.	Name of plantation.	On 1st April 1884.		Added during 1884-85.		On 31st March 1885.		Remarks.
		Area.	Cost.	Area.	Cost.	Total area.	Total cost.	
		Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	
PROME	Prome plantation	73	9,109	...	18	73	9,127	
RANGOON	Kyetpyugan	683	78,593	30	881	713	79,474	
	Magayi	1,577	1,37,409	28	1,854	1,605	1,39,263	
THARRAWADDY ...	Chaungzauk	340	34,727	...	..	340	34,727	
	Kywémakaing	144	16,173	...	60	144	16,233	
	Myodwin	10	431	...	...	10	431	
TOUNGOO	Kanni	65	1,373	...	...	65	1,373	
	Pyunchaung	701	25,222	...	...	701	25,222	
	Yané	9	168	...	...	9	168	
ARAKAN	Myauktaung	10	1,160	...	...	10	1,160	
	Total Regular Plantations ...	3,612	3,04,365	58	2,813	3,670	3,07,178	
	Total Taungya Plantations ...	4,906	52,933	1,427	16,313	6,333	69,246	
	Total Cultural Operations ...	3,213	37,294	...	9,949	3,213	47,243	
	GRAND TOTAL AS PER AVIIId EXPENDITURE ...	11,731	3,94,592	1,485	29,075	13,216	4,23,667	
	ABSTRACT. *British Burma.*							
	Total Regular Plantations	3,635	3,26,684	56	2,813	3,693	3,29,497	
	Total Taungya Plantations	8,012	66,869	1,953	22,607	9,965	89,566	
	Total Cultural Operations	3,213	37,294	...	9,959	3,213	47,253	
	GRAND TOTAL EXPENDITURE VIIId BRITISH BURMA ...	14,860	4,30,847	2,011	35,469	16,871	4,66,316	

FORM No. 50A.—*Statement of Taungya Teak, Cutch, &c., Plantations in the Pegu Circle for 1884-85.*

Division.	Name of reserve.	Year of formation.	Area on 1st April 1884.	Area planted during 1884-85.	Cost up to 1883-84.		Cost during 1884-85.		Total cost.	Average cost per acre up to 1884-85.	Area on 31st March 1885.
					Original cost.	Maintenance.	Original cost.	Maintenance.			
							Rs.	Rs.	Rs.	Rs. A. P	
WADDY.	Bwet	1875-76 ...	37	.....	.....	.....	.....	.....	.....	.....	.....
		1876-77 ...	50	.....	.....	.....	.....	.....	.....	.....	.....
		1877-78 ...	44	.....	.....	.....	.....	.....	.....	.....	.....
		1878-79 ...	150	.....	.....	.....	.....	.....	.....	.....	.....
		1880-81 ...	19	.....	.....	.....	.....	.....	.....	.....	.....
	Total ...	.....	300	.....	1,613	448	.....	.....	2,061	6 13 11	300
	Shwele Yoma	1875-76 ...	11	.....	76	.....	.....	.....	76	6 14 6	11
	Nyanlè	1878-79 ...	1					28			
		1879-80 ...	8								
		1880-81 ...	28	.....	806	175	.....	.....	.....	.....	.....
		1881-82 ...	14			32					
		1882-83 ...	20			41		51			
		1883-84 ...	18	.....	151	.....	.....	35	.....	.....	.....
		1884-85 ...	.....	117	70	.....	1,146	.....	.....	.....	.....
	Total ...	.....	89	117	1,027	248	1,146	114	2,535	12 4 11	206
	Toungnyo Yoma	1875-76 ...	15	.....	135	59	.....	.....	194	12 14 11	Failure 15
	Thitcho	1869-70 ...	7	.....	.....	.....	.....	.....	.....	.....	.....
		1870-71 ...	8	.....	70	.....	.....	.....	.....	.....	.....
	Total ...	.....	15	.....	70	.....	.....	.....	70	4 10 8	Unsatisfactory 15
	Gwedauksan	1875-76 ...	11								
		1876-77 ...	9								
		1878-79 ...	8								
		1880-81 ...	15	.....	697	200	.....	.....	.....	.....	.....
		1881-82 ...	10		.....	26					
		1882-83 ...	11		.....	22	.....	28			
		1883-84 ...	17	.....	202	.....	.....	34	.....	.....	.....
	Total ...	.....	81	.....	899	248	.....	62	1,209	14 14 10	81
	Bawbin Kyaukpyu	1875-76 ...	15	.....	118	10	.....	.....	128	8 8 6	Failure 15
	Bawbin Chaungwa	1869-70 ...	17								
		1873-74 ...	4								
		1874-75 ...	30								
		1876-77 ...	30								
		1877-78 ...	25	.....	1,816	672	.....	.....	.....	.....	.....
		1878-79 ...	26								
		1879-80 ...	18								
		1880-81 ...	28								
		1881-82 ...	28			69					
		1884-85 ...	.....	56	.....	.....	593	.....	.....	.....	.....
	Total ...	.....	206	56	1,816	741	593	.....	3,150	12 0 4	222

THARRA	Kangyi	1878-79 ...	34									
		1879-80 ...	66									
		1880-81 ...	58	...	1,637	817	....	.....	.....	.....	.....	
		1881-82 ...	14			34						
		1882-83 ...	3			7		8				
		1883-84 ...	44	.....	493	.....	.....	89	.....	.....	.....	
		1884-85 ...	...	24	.....	.....	201	... ..	.....	.....	.....	
	Total ...	....	239	24	2,130	858	201	97	3,286	12 7 11	263	
	Minhla Myaung	1873-74 ...	25									
		1874-75 ...	40	.....	1,184	843	.....	.....	.....	.....	.....	
		1875-76 ...	57									
		1883-84 ...	28	.....	166	.....	.....	65	.....	.....	.....	
		1884-85 ...	.	40	170	.....	416	.....	.. ...	.....	.....	
	Total ...	.....	147	40	1,520	843	416	65	2,844	15 3 4	187	
	Minhla Môkka	1873-74 ...	23									
		1874-75 ...	41									
		1875-76 ...	86									
		1880-81 ...	38	.....	3,714	1,338	.....	.....	.....	.....	.....	
		1881-82 ...	131			241						
		1882-83 ...	123		20	271		271				
		1883-84 ...	213	. ..	2,001	.....	.....	513	.....	.....	.....	
		1884-85 ...	. ....	138	376	.....	1,332	.. ..	.....	.....	.....	
	Total ...	.....	655	138	6,111	1,850	1,332	784	10,077	12 11 4	793	
	Môkka Bilin	1869-70 ...	10									
		1870-71 ...	12									
		1871-72 ...	27									
		1873-74 ...	160									
		1874-75 ...	157									
		1875-76 ...	29									
		1876-77 ...	155	.....	10,762	4,031	.....	.....	.....	.....	.....	
		1877-78 ...	98									
		1878-79 ...	102									
		1879-80 ...	86									
		1880-81 ...	136									
		1881-82 ...	259			556						
		1882-83 ...	233			520						
		1883-84 ...	245	.....	2,995	.....	8	520	.....	.....	.....	
		1884-85 ...	.....	311	754	.....	2,654	607	.....	... .	.....	
	Total ...	.....	1,707	311	14,511	5,107	2,662	1,127	23,407	11 9 7	2,018	
	Kadin Bilin	1875-76 ...	4	.....	23	17	.....	.. ...	40	10 0 0	4	
	Thônzè Kôn Bilin ...	1875-76 ...	19									
		1877-78 ...	38									
		1878-79 ...	34									
		1879-80 ...	41	.....	2,130	871	. .....	7	.....	. .....	.....	
		1880-81 ...	95									
		1881-82 ...	77			117	.....	. ....	.....	.....	.....	
		1882-83 ...	52		10	121	.....	. . ..	.....	.....	.....	
		1883-84 ...	117	. ...	1,062	.....	7	121	.....	.....	.....	
		1884-85 ...	.. ..	65	200	.. ...	628	232	.....	.....	.....	
	Total ...	... .	473	65	3,402	1,109	635	360	5,506	10 3 9	538	
	TOTAL THARRAWADDY ...	. ..	3,957	751	33,451*	11,538	6,985	2,609	54,583	.....	4,708	

FORM No. 50A.—*Statement of Taungya Teak, Cutch, &c., Plantations in the Pegu Circle for 1884-85*—(continued).

Division.	Name of reserve.	Year of formation.	Area on 1st April 1884.	Area planted during 1884-85.	Cost up to 1883-84.		Cost during 1884-85.		Total cost.	Average cost per acre up to 1884-85.	Area on 31st March 1885.
					Original cost.	Maintenance.	Original cost.	Maintenance.			
					Rs.	Rs.	Rs.	Rs.	Rs.	Rs. A. P.	
PROME ...	Chaungzauk	1879-80 ...	67	.....	304	609	.....	.....	913	.....	.....
		1880-81 ...	132	.....	319	.....	.....	.....	319	.....	.....
		1881-82 ...	102	.....	712	310	.....	.....	1,022	.....	.....
		1882-83 ...	98	.....	1,158	.....	.....	265	1,423	.....	.....
		1883-84 ...	162	.....	848	576	199	432	2,055	.....	.....
		1884-85 ...	.....	123	.....	.....	600	25	625	.....	.....
	TOTAL PROME ...	.....	561	123	3,341	1,495	799	722	6,357	9 4 8	684
RANGOON ...	Dawè South Zamayi ...	1882-83 ...	30	.....	53	.....	.....	.....	53	.....	.....
		1883-84 ...	57	.....	322	.....	.....	.....	322	.....	.....
		1884-85 ...	.....	73	.....	.....	379	.....	379	.....	.....
	TOTAL RANGOON ...	.....	87	73	375†	.....	379	.....	754	.....	160
TOUNGOO ...	Yanè	1883-84 ...	18	15	209	.....	136	66	411	.....	.....
	East Swa	1884-85 ...	19	29	273	.....	269	78	620	.....	.....
	Bôndaung		17	7	144	.....	45	37	226	.....	.....
	Kabaung		4	3	41	.....	80‡	12	133	.....	.....
	Pyunchaung		.....	.....	.....	.....	222	.....	222	.....	.....
	TOTAL TOUNGOO ...	.....	58	54	667	.....	758	193	1,612	.....	112
	TOTAL TEAK TAUNGYAS ...	.....	4,663	1,001	37,834	13,033	8,915	3,524	63,306	.....	5,664
THARRA-WADDY	Kyaukkyidaung	1883-84 ...	33	.....	342	.....	.....	.....	.....	.....	.....
		1884-85 ...	.....	93	.....	.....	763	46	.....	.....	.....
	Total ...	.....	33	93	342	.....	763	46	1,151	9 2 2	126
	Pazingyi ...	1884-85 ...	.....	12	.....	.....	108	.....	108	.....	12
	Gwedaukkwin ...	.....	91	237	663	.....	2,155	120	2,938	.....	398
	TOTAL THARRAWADDY ...	.....	124	342	1,005	.....	3,026	166	4,197	.....	466
PROME ...	Chaungzauk	1882-83 ...	38	.....	350	.....	.....	105	455	.....	.....
		1883-84 ...	81	.....	423	288	.....	216	927	.....	.....
		1884-85 ...	.....	84	.....	.....	361	.....	361	.....	.....
	TOTAL PROME ...	.....	119	84	773	288	361	321	1,743	.....	203
	TOTAL TEAK AND CUTCH ...	.....	243	426	1,778	288	3,387	487	5,940	.....	669
	TOTAL TAUNGYAS ...	.....	4,906	1,427	39,612	13,321	12,302	4,011	69,246	.....	6,333

* Total of two columns Rs. 44,989 : shown last year as Rs. 43,419, difference of Rs. 1,570, being value of seed, part of Rs. 1,718 shown in 1883-84 and allotted in 1884-85.
† Rs. 73 cost of seed in 1883-84, added to Rs. 302.
‡ Includes Rs. 35 spent some 12 years ago.

FORM No. 50A.—*Statement of Taungya Teak, Cutch, &c., Plantations in the Pegu Circle for 1884-85*—(concluded).

Division.	Name of reserve.	Cultural operations. On 1st April 1884. Area.	Cost.	Added in 1884-85 Area.	Cost.	On 31st March 1885. Area.	Cost.	Remarks.
		Acres	Rs.	Acres	Rs.	Acres.	Rs.	
THARRAWADDY..	[illegible]	600	6,536	.....	951	600	7,487	
	Nyanie	830	10,439	.....	2,140	830	12,579	
	Kangyi	350	1,942	.....	.	350	1,942	
	Mókka Bilin	1,008	6,479	.....	185	1,008	6,664	
	Tharrawaddy forest garden	. .	4,955	.....	1,874	.....	6,829	
	Kyaukkyidaung	... .	1,265	.....	.....	.....	1,265	
	Gwedaukkwin	.. .	114	.....	. . .	.....	114	
	Pazingyi	... .	111	.....	1,453	.....	1,564	
	Do	125	1,636	.. ...	. . .	125	1,636	
	Kadinzauk	300	2,882	.....	614	300	3,496	
	Teak and cutch seeds	..	. .	. ...	2,620	.. ..	2,620	
	Total	3,213	36,359*	... ..	9,837	3,213	46,196	* Less than last year by Rs. 1,570, being value of seed transferred to Form 50A.
RANGOON ..	Magayi	.....	382	.....	.....	.....	382	
PROME ...	Chaungzauk	.....	37	. . .	9	. ...	46	Mulberry experiments.
TOUNGOO ...	Pyunchaung	.. .	898	. ...	103	.....	1,001	Evergreen fire-trace.
	Total Cultural Operations	3,213	37,294	. .	9,949	3,213	47,243	

FORM No. 50A.—*Statement of Taungya Teak and Thitka Plantations in the Tenasserim Circle for the year 1884-85.*

Division	Name of reserve	Year of formation	Area on 1st April 1884.	Area planted with teak during 1884-85	Cost up to 1883-84		Cost during 1884-85.		Total cost.	Average cost per acre up to 1884-85	Area on 31st March 1885	Remarks.
					Original cost.	Maintenance	Original cost	Maintenance.				
					Rs	Rs	Rs.	Rs	Rs	Rs A. P		
West Salween	Sinzwè	1869-70	898	64	1,538	2,229	323	756	4,846	5 0 7	962	A portion of the expenditure has been charged in the accounts for 1885-86, and in some cases the figures herein noted include expenditure of the previous year
	Wamu	1877-78	34	15	149	32	74	43	298	6 1 4	49	
	Kahilu	1879-80	32	7	86	60	91	363	600	15 6 2	39	
	Onkangyi	1877-78	52	69	250	121	339	..	710	5 13 10	121	
	Bilakatkyi	1877-78	35	..	75	6	..	...	81	2 5 0	35	
	Minnannwè	1877-78	113	...	436	45	..	70	551	4 14 0	113	
	Mewaing	1878-79	178	31	661	138	210	73	1,082	5 2 10	209	
	Total		1,342	186	3,195	2,631	1,037	1,305	8,168	5 5 6	1,528	
Ataran	Dali	...	78	22	270	51	104	95	520	5 3 2	100	
	Kyunchaung	...	81	13	638	32	132	154	956	10 2 9	94	
	Pakabo	...	3	..	11			3	14	4 10 8	3	
	Total		162	35	919	83	236	252	1,490	7 9 0	197	
East Salween	Mèpale	...	43	42	66	74	315	.	455	5 5 7	85	
	Plantation other than teak											
West Salween	Kahilu	...	6	..	.	.	35	12	47	7 13 4	6	Thitka.
	GRAND TOTAL		1,553	263	4,180	2,788	1,623	1,569	10,160	5 9 6	1,816	

FORM No. 51.—*Area of Forest Tracts protected from Fire during the Dry Season of 1885 (to accompany Report for 1884-85).*

Division.	Forest tract.	Up to June 1884.		During the dry season of 1885.				Total cost up to June 1885.	Year in which protection commenced.	Remarks.
		Area actually protected.	Total cost.	Area attempted to be protected.	Failure.	Area actually protected.	Amount expended.			
		Acres.	Rs.	Acres.	Acres.	Acres.	Rs.	Rs.		
West Salween	Sinzwè	8,354	5,573	8,960	740	8,220	1,427	7,000	1871	
	Waimu	1,420	70	1,920	20	1,900	99	169	1871	
	Kahilu	18	147	1,280	...	1,280	98	245	1878	
	Mèwaing	7,360	180	7,360	...	7,360	25	205	1877	
	Minnannwè	3,840	11	3,840	...	3,840	...	11	1878	
	Ônkangyi	7,937	743	8,320	85	8,235	37	786	1877	
	Bilakatkyi	3,840		8,320	5,820	2,500	6			
	Tagèlaung	...	...	3,072	600	2,472	...	...	1885	
East Salween	Mèpalè West	18,560	2,379	25,600	518	25,082	2,350	4,729	1881	
Ataran	Kyunchaung	10,819	1,308	10,880	15	10,865	599	1,907	1880	
	Dali	69	414	73	...	73	140	554	1878	
	Natchaung	1,800	166	1,800	...	1,800	119	285	1883	
	Pakabo	3	6	3	...	3	5	11	1883	
	Total	64,020	10,997	81,428	7,798	73,630	4,905	15,902	...	

Charged in previous years		1,857
Do.	1879-80	1,299
Do.	1880-81	1,533
Do.	1881-82	1,409
Do.	1882-83	1,793
Do	1883-84	3,106
Do.	1884-85	4,905
	Total	15,902

FORM No. 51.—*Area of Forest Tracts protected from Fire during the Dry Season of 1885 (to accompany Report for 1884-85).*

Division.	Forest tract	Up to June 1884		During dry season of 1885.					Year in which protection commenced.	Remarks.
		Area actually protected.	Total cost.	Area attempted to be protected.	Failures.	Area actually protected.	Amount expended	Total cost up to 1885.		
		Acres	Rs.	Acres.	Acres.	Acres.	Rs.	Rs.		
PROME ...	Teak plantation	75	100	75	...	75	17	117	1875	
	Chaungzauk	2,914	8,397	4,185	...	4,185	782	9,179	1879	
THARRAWADDY...	Bwet	2,822	7,591	2,886	47	2,839	1,273	8,864	1877	
	Nyanlé	5,340	13,594	5,340	152	5,188	1,209	14,803	1877	
	Bawbin	809	4,078	814	224	590	909	4,387	1869	
	Gwédauksan	233	451	233	...	233	100	551	1876	
	Kangyi	3,451	10,414	3,801	123	3,678	1,115	11,529	1877	
	Myodwin	40	619	40	...	40	41	660	1869	
	Mvaung-Minhla	669	1,063	819	..	819	340	1 403	1876	
	Minhla-Môkka	3,000	1,231	3,000	892	2,108	186	1,417	1876	
	Môkka-Bilin	20,512	15,604	20,980	1,320	19,660	1,031	16,635	1873	
	Thônzé, Kôn Bilin	2,167	670	2,180	...	2,180	170	840	1876	
RANGOON ...	Magayi plantation	1,577	23,299	1,605	...	1,605	1,629	24,928	1872	
	Magayi reserve.	1,512		1,534	60	1,474				
	Kyetpyugan plantation	653	4,951	683	1	682	518	5,469	1868	
	Kyetpyugan teak yas	...	..	30	...	30			1884	
	Dawe plantation	30	110	108	..	108	50	160	1883	
	Dawe reserve	30,720		30,642	1	30,641				
TOUNGOO .	Pyun chaung	3,430	5,473	3,440	...	3,440	387	5,860	1877	
	Yane	5,760	3,311	5,760	.	5,760	408	3,719	1877	
	East Swa	17,270	2,077	17,280	...	17,280	845	2,922	1883	
	Bôndaung teak yas	...	.	17	...	17	49	49	1884	
	Kabaung	..	.	6	...	6				
ARAKAN ...	Myauktaung	...	785	...	..	...	.	785	1874	
	Total Pegu Circle ...	102,984	1,03,818	105,458	2,820	102,638	10,459	1,14,277		
	Total Tenasserim Circle ...	64,020	10,997	81,428	7,798	73,630	4,905	15,902		
	GRAND TOTAL BRITISH BURMA ...	167,004	1,14,815	186,896	10,618	176,268	15,364	1,30,179		

Charged in previous years ..	82,256
Do 1882-83 ...	10,697
Do. 1883-84 ..	10,865
Do. 1884-85 .	10,459
Total ...	1,14,277

Dr. ANNUAL FORM No. 54 [PRESCRIBED] —*Account-current for the year 1884-85.* Cr.

TENASSERIM CIRCLE.		Rs. A. P	Rs. A. P
To Opening balance ...		.....	608 11 7
„ Revenue as per annual form No. 53		.....	3,99,553 10 1
„ *Service Funds*—			
Military Fund, Madras		525 2 3	
Military Orphan Fund, Madras		48 0 0	
Uncovenanted Service Family Pension Fund		717 15 0	
			1,291 1 3
„ *Forest Cash Remittances (Local)*—			
Forest cheques drawn		4,00,623 3 6	
Interdivisional transfers		473 13 1	
			4,01,097 0 7
„ Advances recoverable		.....	96,585 9 0
„ *Account-current with other Governments*—			
Government of India		476 13 4	
Government of North-Western Provinces and Oudh		181 5 4	
			658 2 8
To INTER-DEPARTMENTAL TRANSFERS			
„ *Civil Department*—	Rs. A. P.		
Jail	875 0 0		
Law and Justice	805 0 0		
Miscellaneous	24 3 1		
		1,704 3 1	
Marine Department		253 3 10	
			1,957 6 11
Total Tenasserim		.....	9,01,851 10 1
PEGU CIRCLE.			
To Opening balance ...		.....	3,571 0 0
„ Revenue as per annual form No. 53		.....	12,71,328 0 4
„ *Service Funds*—			
Uncovenanted Service Family Pension Fund, Bengal		.....	510 12 0
„ Deposits		.....	455 14 2
„ *Forest Cash Remittances (Local)*—			
Forest cheques drawn		8,53,834 3 4	
Interdivisional transfers		39,082 10 9	
			8,92,916 14 1
„ Advances recoverable		.....	4,00,332 14 11
„ Suspense		.....	373 0 0
„ *Account Current other Governments*—			
Government of India		4,038 3 8	
Government of North-Western Provinces and Oudh		161 5 4	
Government of Bombay		250 0 0	
			4,449 9 0
„ *Inter-departmental Transfers*—			
Military Department, Bengal		92 9 1	
Military Department, Madras		17 8 11	
„ *Civil Department*—	Rs. A. P.		
Jail	323 14 8		
Police	200 0 0		
		523 14 8	
			634 0 8
Total Pegu		.....	25,74,572 1 2

TENASSERIM CIRCLE		Rs. A. P.	Rs. A. P
By Expenditure as per annual form No. 53		.....	3 08,114 0 11
„ *Forest Cash Remittances (Local)*—			
Remittances to treasuries		3,30,991 11 6	
„ Interdivisional transfers		413 13 1	
			3,31,405 8 1
„ Advances recoverable		.....	1,86,472 2 7
„ Suspense		.....	50 0 0
„ *Account Current with other Governments*—			
Government of India		.....	36,938 15 3
„ *Inter-departmental Transfers*—			
Public Works Department, other branches		627 1 0	
Military Department, Madras		16,888 15 8	
Military Department, Bombay		10,661 15 11	
„ *Civil Department*—	Rs A. P		
Jail	3,678 2 0		
Miscellaneous	24 3 1		
		3,702 5 1	
„ Telegraph Department		275 0 0	
			32,155 5 8
„ Closing balance		.....	6,715 9 7
Total Tenasserim		.....	9,01,851 10 1
PEGU CIRCLE.			
By Expenditure as per annual form No. 53		.....	9,04,119 4 6
„ Deposits		.....	1,075 2 8
„ *Forest Cash Remittances (Local)*—			
Remittances to treasuries		9,61,606 9 11	
Interdivisional transfers		39,089 7 9	
			10,00,696 1 8
„ Advances recoverable		.....	3,53,370 3 1
„ Suspense		.....	373 0 0
„ *Account Current other Governments*—			
Government of India		.....	2,13,164 7 3
„ *Inter-departmental Transfers*—	Rs. A. P.		
P W D. State Railways, Burma State Railway	46,719 2 10		
Other branches	13,838 7 1		
Madras	19,026 4 0		
		79,583 13 11	
„ Military Department, Madras		362 0 0	
„ *Civil Department*—	Rs. A. P.		
Jail	8,278 11 6		
Cinchona plantation charges	775 8 0		
		9,054 3 6	
„ Telegraph Department		8,704 14 1	
			97,704 15 6
„ Closing balance		.....	4,068 14 6
Total Pegu		.....	25,74,572 1 2

W. H. EGERTON,
Asst. Comptroller-General (Forests).

ANNUAL FORM No. 54 [PRESCRIBED].—*Account Current for 1884-85.*

	Tenasserim Circle.	Pegu Circle.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
To opening balance	608 11 7	3,571 0 0	4,179 11 7
Revenue as per annual form No. 53	3,99,653 10 1	12,71,328 0 4	16,70,981 10 5
Service funds—			
Military fund, Madras	525 2 3	...	525 2 3
Military Orphan fund, Madras	48 0 0	..	48 0 0
Uncovenanted Service fund, Bengal	717 15 0	510 12 0	1,228 11 0
Deposits	...	455 14 2	455 14 2
Forest cash remittances (local)—			
Forest cheques drawn	4,00,623 3 6	8,53,834 3 4	12,54,457 6 10
Interdivisional transfers	473 13 1	39,082 10 9	39,556 7 10
Advances recoverable	96,585 9 0	4,00,332 14 11	4,96,918 7 11
Suspense	...	373 0 0	373 0 0
Account-current with other Governments—			
Government of India	476 13 4	4,038 3 8	4,515 1 0
Government of North-Western Provinces and Oudh	181 5 4	161 5 4	342 10 8
Government of Bombay	.....	250 0 0	250 0 0
Interdepartmental transfers—			
Military Department, Bengal	.....	92 9 1	92 9 1
Military Department, Madras	.....	17 8 11	17 8 11
Civil Department—			
Jail	875 0 0	323 14 8	1,198 14 8
Police	..	200 0 0	200 0 0
Law and Justice	805 0 0	..	805 0 0
Miscellaneous	24 3 1	....	24 3 1
Marine Department	253 3 10	...	253 3 10
Total	9,01,851 10 1	25,74,572 1 2	34,76,423 11 3

	Tenasserim Circle.	Pegu Circle.	Total.
	Rs A. P.	Rs. A. P.	Rs. A. P.
By expenditure as per annual form No 53	3,08,114 0 11	9,04,119 4 6	12,12,233 5 5
Deposits	...	1,075 2 8	1,075 2 8
Forest cash remittances (local)—			
Remittances to treasuries	3,30,991 11 0	9,61,606 9 11	12,92,598 4 11
Interdivisional transfers	413 13 1	39,089 7 9	39,503 4 10
Advances recoverable	1,86,472 2 7	3,53,370 3 1	5,39,842 5 8
Suspense	50 0 0	373 0 0	423 0 0
Account-current with other Governments—			
Government of India	36,938 15 3	2,13,164 7 3	2,50,103 6 6
Interdepartmental transfers—			
Public Works Department, other branches	627 1 0	.....	627 1 0
State Railways—B. State Railway	....	46,719 2 10	46,719 2 10
Other branches	..	13,838 7 1	13,838 7 1
Madras	.....	19,026 4 0	19 026 4 0
Bombay	10,661 15 11	.....	10,661 15 11
Madras	16,888 15 8	362 0 0	17,250 15 8
Civil Department—			
Jail	3,678 2 0	8,278 11 6	11,956 13 6
Cinchona plantations	.....	775 8 0	775 8 0
Miscellaneous	24 3 1	.	24 3 1
Telegraph Department	275 0 0	8,704 14 1	8,979 14 1
Closing balance	6,715 9 7	4,068 14 6	10,784 8 1
Total	9,01,851 10 1	25,74,572 1 2	34,76,423 11 3

ANNUAL FORM No. 55 [PRESCRIBED].—*Statement of Outstandings and Liabilities on account of Contractors and Disbursers for 1884-85.*

Division	Department debtor			Department creditor			Balance due		Remarks
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year	At close of year	At commencement of year	Payments made during year	At close of year	To department (outstandings)	By department (liabilities)	
	Rs A P	Rs A P	Rs A. P	Rs A P	Rs. A P	Rs. A. P	Rs. A P	Rs A. P	
Salween	.	70,872 1 2	70,872 1 2	31,283 1 9	1,60,390 11 6	1,91,673 13 3	1,20,801 12 1	..	
Kado revenue station	.	7 966 5 3	7 966 5 3	325 0 0	9,028 1 9	9,353 1 9	1 386 12 6	...	
South Tenasserim	.	17,747 2 7	17,747 2 7	3,671 10 7	17 053 5 4	20 724 15 11	2,977 13 4		
Total Tenasserim Circle	..	96,585 9 0	96,585 9 0	35,279 12 4	1,86,472 2 7	2,21,751 14 11	1 25,166 5 11	.	
Government Timber Depot and Agency Office	3 0 0	40,961 0 2	40,964 0 2	2,840 10 9	43,533 11 3	46,374 6 0	5,413 5 10	3 0 0	
Rangoon	150 0 0	68,952 8 2	69 102 8 2	19,113 9 1	62,654 5 1	81,767 14 2	12,815 6 0	150 0 0	
Tharrawaddy	..	1,82,969 10 7	1,82,969 10 7	49,208 14 2	1,66 250 3 1	2,15 459 1 3	32,489 6 8	..	
Prome	..	59 519 6 8	59,519 6 8	32,835 8 0	26 776 14 5	59 612 6 5	92 15 9	..	
Western	..	10,042 13 6	10 043 13 6	3,614 14 4	24,611 1 3	28,225 15 7	18,182 2 1	.	
Toungoo	..	31,565 7 10	31,565 7 10	3,975 6 6	29 184 0 0	33,159 6 6	1,593 14 8	.	
Shwegyin	..	6,321 0 0	6,321 0 0	6,111 0 0	360 0 0	6,471 0 0	150 0 0	..	
Total Pegu Circle	153 0 0	4,00 392 14 11	4,00,485 14 11	1 17,699 14 10	3,53,370 3 1	4 71,070 1 11	70,737 3 0	153 0 0	
GRAND TOTAL BRITISH BURMA	153 0 0	6,918 7 11	4,97 071 7 11	1,52,979 11 2	5,39,842 5 8	6,92,822 0 10	1 95,903 8 11	153 0 0	

CALCUTTA :
The 24th June 1885.

W. H. EGERTON,
Asst. Comptroller-General (Forests).

ANNUAL FORM No. 56 [PRESCRIBED].—*Revenue received and Outstandings on account of Revenue during 1884-85.*

Division	Particulars	Outstandings at commencement of year	Value of sales and other revenue during year	Total.	Amount realized during year	Balance due to the department at end of year	Remarks
		Rs. A P.	Rs A. P	Rs A. P	Rs A P.	Rs A. P	
SALWEEN	Timber and other produce, &c	. .	2,67,498 0 0	2,67,498 0 0	2,61,891 8 0	5,606 8 0	
KADO REVENUE STATION.	Ditto do.	.. .	88,904 10 10	88,904 10 10	87,332 10 10	1,572 0 0	
SOUTH TENASSERIM .	Ditto do.	. .	50,429 7 3	50,429 7 3	50,429 7 3		
	Total Tenasserim Circle .	..	4,06,832 2 1	4,06,832 2 1	3,99,653 10 1	7,178 8 0	From private purchasers Rs. 7,178-8-0
G T DEPÔT AND AGENCY OFFICE ...	Timber and other produce, &c	21,160 14 0	7 46,302 9 10	7,67,463 7 10	7,55,490 13 10	11,972 10 0	
RANGOON	Ditto do.	666 0 0	2,15,904 1 5	2,16,570 1 5	2,16,570 1 5	. .	
THARRAWADDY ...	Ditto do.	.	60,478 11 6	60,478 11 6	60,478 11 6	. .	
PROME ..	Ditto do.	.	86,811 13 3	86,811 13 3	86,811 13 3	.	
WESTERN	Ditto do	659 0 0	40,991 10 0	41,650 10 0	41,590 2 0	60 8 0	
TOUNGOO	Ditto do.	. .	33,107 10 6	33,107 10 6	33,107 10 6		
SHWEGYIN	Ditto do.		77,944 11 10	77,944 11 10	77,944 11 10	.	
	Total Pegu Circle ...	22,485 14 0	12,61 541 4 4	12,84,027 2 4	(a) 12,71,994 0 4	12,033 2 0	
	GRAND TOTAL BRITISH BURMA .	22,485 14 0	16,68,373 6 5	16,90,859 4 5	16,71,647 10 5	19,211 10 0	

	Rs	A	P.
(a) Realization as per Form No 53 ..	12,71,328	0	4
Written off under Government sanction	666	0	0
Total .	12,71,994	0	4

From private purchasers 12,033 2 0

CALCUTTA:
The 24th June 1885.

W. H. EGERTON,
Asst. Comptroller-General (Forests).

ANNUAL FORM No. 57 [PRESCRIBED].—*Statement showing the Financial Results in the Tenasserim and Pegu Circles for 1884-85.*

Division.		Timber and other produce removed from the forests by Government Agency		Other revenue		Formation, protection, and improvement of forests.	Total.		Remarks.
		Receipts.	Charges	Receipts.	Charges.	Charges.	Receipts	Charges	
		Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	
Tenasserim	Salween	19,192	18,922	5,121	1,124	5,178	24,313	25,194	
	East Salween	1,31,074	66,299	7,099	3,125	11,834	1,38,173	81,258	
	West Salween	22,784	22,584	852	530	13,580	23,636	36,694	
	Ataran	66,116	39,593	9,654	1,215	4,918	75,770	45,726	
	South Tenasserim	37,482	39,645	12,947	7,958	9,070	50,429	56,673	
	Kado	.	23	87,332	62,616		87,332	62,639	
	Total Tenasserim	2,76,648	1,86,966	1,23,005	76,568	44,580	3,99,653	3,08,114	
Pegu	Tharrawaddy	2,18,118	1,86,070	59,585	20,441	55,658	2,77,703	2,62,169	
	Rangoon	3,06,980	2,23,541	17,822	16,957	20,885	3,24,802	2,61,383	
	Prome	94,279	89,863	79,931	13,027	13,731	1,74,210	1,16,621	
	Toungoo	2,76,204	1,18,533	18,058	10,035	15,360	2,94,262	1,43,928	
	Western	16,578	42,763	25,327	6,985	6,205	41,905	55,953	
	Shwegyin	42,888	29,801	44,134	5,170	5,290	87,022	40,261	
	Agency	64,083	23,804	7,341	..	.	71 424	23,804	
	Total Pegu	10.19 130	7,14,375	2,52,198	72,615	1,17,129	12,71,328	9,04,119	
Grand Total British Burma		12,95 778	9,01,341	3,75,203	1,49,183	1,61,709	16,70,981	12,12,233	

FORM No. 60 [PRESCRIBED].—*Statement of Timber and other Produce received from Forests in Sale Depôts during 1884-85.*

Division.	Depôt	Produce received. Description.	Number of quantity.	Cubic feet.	Remarks
SALWEEN	Kado and Battery Point	Teak pieces and crooks	2,755	17,311	Lower Salween forest.
		Teak crooks	194	770	Kohun forest.
		Teak logs	85	6,288	Foreign.
		Pyinma logs	30	1,321	
		Ingyin logs	32	1,074	
		Total Salween ...	3,096	26,770	
EAST SALWEEN ...	Ditto ..	Teak logs and pieces	6,500	200,358	Thaungyin forests 34 logs 918 feet transferred from Kado division
		Teak logs	488	18,523	Haungtharaw forests
		Teak logs and pieces	1,717	29,790	Hlaingbwé forests.
		Thitka logs	60	2,895	
		Pyinma logs	1,628	84,690	
		Thitkado logs	27	1,600	
		Total East Salween ..	10,420	337,856	
WEST SALWEEN ...	Ditto .	Teak logs and pieces	1,850	35,188	Upper Salween forests 8 pieces 66 feet transferred from Kado division
		Teak pieces and crooks . ..	1,520	17,216	Dôndami forests.
		Ditto ditto	1,109	7,830	Yunzalin forests.
		Pyinma logs	200	9,463	
		Total West Salween ...	4,197	69,697	
ATARAN	Ditto ..	Teak logs, pieces, and crooks ...	6,151	68,192	Ataran forests
		Padauk logs and pieces	352	8,563	
		Thitka logs	270	22,546	
		Pyinma logs	741	31,024	
		Ingyin logs	49	1,549	
		Thingan logs	108	4,905	
		Padauk branches	1,647	2,495	
		Total Ataran ...	9,318	139,274	
SOUTH TENASSERIM	Tavoy	Teak logs	10	523	Drift.
		Thitka logs	6	320	
		Tagu logs	2	83	
		Pyinma logs	1	53	
		Pyingado logs	1	45	
		Scantlings 10′ × 5″ × 2½″	598	503	
		Sleepers, large	318	936	
		Do., small	29,070	38,760	
	Mergui ...	Teak logs	4	273	Drift.
		Total South Tenasserim ...	30,010	41,505	
KADO ...	Kado and Battery Point	Teak logs	8,236	220,020	Drift.
		Thitka logs	2	60	
		Thitkado logs	1	30	
		Thitpyu logs	1	30	
		Jungle logs	11	398	
		Pyinma logs	6	180	
		Mango logs	6	150	
		Thingan logs	1	40	
		Pine logs	1	40	
		Thiya	2	80	
		Total Kado .	8,267	221,028	
		GRAND TOTAL ...	65,308	836,130	
		Abstract of the several divisions.			
		Teak logs, pieces, and crooks ...	30,128	622,588	
		Thitka logs	352	25,501	
		Thitkado logs	28	1,030	
		Padauk logs and pieces ...	352	8,563	
		Pyinma logs	2,615	126,431	
		Ingyin logs	81	2,623	
		Thingan logs	109	4,945	
		Padauk branches	1,647	2,495	
		Thitpyu logs	1	30	
		Jungle logs	11	398	
		Mango logs	6	150	
		Pine logs	1	40	
		Thiya logs	2	80	
		Thitshu logs	6	329	
		Tagu logs	2	83	
		Pyingado logs	1	45	
		Scantlings 10′ × 5″ × 2½″ (pyingado)	598	503	
		Sleepers large (pyingado) ...	318	936	
		Do. small (do.) ...	29,070	38,760	
		Total ...	65,308	836,130	

FORM No. 60 [PRESCRIBED].—*Statement of Timber and other Produce received from the Forests in Sale Depôts during 1884-85.*

Division	Forest	Description of timber, &c	Number of Pieces.	Number of Cubic feet.	Total of each division. Pieces.	Total of each division. Cubic feet.	Remarks.
		PEGU CIRCLE					
THARRAWADDY	Boben ...	Dugyis	1,013	57,741			
		Luzars	1,285	51,400			
		Yatthits	372	8,556			
		Yard pieces	6	444			
	Thôuze	Dugyis	454	25,878			
		Luzars	1,049	41,960			
		Yatthits	425	9,775			
	Minhla	Dugyis	511	29,127			
		Luzars	589	21,500			
		Yatthits	1,368	31,464			
		Squares	3	30			
	Bilin	Dugyis	65	3,705			
		Luzars	264	10,560			
		Yatthits	224	5,152			
	Kôn Bilin ...	Dugyis	259	14,763			
		Luzars	518	20,720			
		Yatthits	273	6,279			
	Môkka	Dugyis	84	4,788			
		Luzars	181	7,240			
		Yatthits	188	4,524			
		Squares	1	10			
		Kanyin	106	1,176			
	Minbu	Luzars	3	120			
		Yatthits	1	23			
	Taungnyo ...	Dugyis	1,984	118,088			
		Luzars	3,994	159,760			
		Yatthits	1,267	29,147			
		Yard pieces	16	1,181			
	Taungchaung ...	Luzars	1	40			
		Yatthits	2	46			
	Ôkpo ..	Luzars	45	1,800			
		Squares	16	160			
	Tu	Dugyis	54	3,078			
		Luzars	69	2,760			
		Yatthits	473	10,879			
	Myaung	Yatthits	110	2,530			
	Ngapê-Myaung ...	Yatthits	433	9,959			
	Zigon	Htaukyan	10	380			
	Shwele	Dugyis	142	8,094			
		Luzars	504	20,160			
		Yatthits	40	920			
	Various	Luzars	3	120			
		Yatthits	5	115	18,410	723,009	
RANGOON.	Pegu	Dugyis	422	24,054			
		Luzars	361	14,440			
		Yatthits	18	414			
		Yard pieces	12	888			
		Rejected	2	66			
	Zamayi	Dugyis	134	7,638			
		Luzars	753	30,120			
		Yatthits	75	1,725			
		Yard pieces	2	148			
		Rejected	26	858			
		Pylunna	80	2,800			
	Tukan and Kwe-kaw.	Dugyis	41	2,337			
		Luzars	301	12,040			
		Yatthits	32	736			
		Yard pieces	2	148			
		Rejected	11	363			
		Dugyis	10	570			
		Luzars	577	23,080			
		Yatthits	11	253			
		Rejected	15	495			
	Wapyuchaung ...	Dugyis	13	741			
		Luzars	209	8,360			
		Yatthits	17	391			
		Yard pieces	1	74			
		Rejected	5	165			
	Wunchaungwa ...	Dugyis	14	798			
		Luzars	584	23,360			
		Yatthits	27	621			
		Rejected	32	1,056			
		Carried over ...	3,787	158,739	18,410	723,009	

FORM No. 60 [PRESCRIBED].—*Statement of Timber and other Produce received from the Forests in Sale Depôts during 1884-85*—(continued).

Division.	Forest	Description of timber, &c.	Number of Pieces	Number of Cubic feet.	Total of each Division Pieces	Total of each Division Cubic feet.	Remarks
		Brought forward	3,787	158,739	18,410	723,009	
RANGOON—concluded	Themé ...	Dugyis	2	114			
		Luzars	128	5,120			
		Yatthits	7	161			
		Rejected	5	165			
	Kunwi ...	Dugyis	24	1,368			
		Luzars	598	23,920			
		Yatthits	76	1,748			
		Rejected	34	1,122			
	Kadat ..	Dugyis	19	1,083			
		Luzars	419	16,760			
		Yatthits	50	1,150			
		Yard pieces	1	74			
		Rejected	15	495			
	Ôkkan ...	One-third per cent. teak timber	223	8,369			
	Dawè chaung ...	Dugyis	24	1,368			
		Luzars	106	4,240			
		Yatthits	31	713			
		Rejected	5	165			
		Pyingado scantlings	14,572	22,093			
					20,126	249,867	
PROME	Nawin	Dugyis	991	56,887			
		Luzars	1,015	40,600			
		Yatthits	156	3,588			
		Yard pieces	2	148			
	Rangoon	Dugyis	547	31,170			
		Luzars	365	14,600			
		Yatthits	157	3,611			
		Yard pieces	3	222			
	Butti ...	Dugyis	132	7,524			
		Luzars	105	4,200			
		Yatthits	21	483			
					3,494	163,012	
TOUNGOO	Thaung ...	Luzars	3	120			
	Swa ...	Dugyis	288	16,416			
		Luzars	150	6,000			
		Yatthits	7	161			
		Thirty per cent. teak timber	153	7,650			
	Kabaung ...	Dugyis	764	43,548			
		Luzars	798	31,920			
		Yatthits	103	2,300			
		Yard pieces	15	1,110			
		Half-profit principle	276	11,592			
		Forty per cent teak timber	4	132			
		Thitka	1	35			
	Binbyé ...	Half-profit principle	26	1,092			
	Myohla ...	Forty per cent. teak timber	776	25,608			
		Half-profit principle	309	12,978			
		Forty-five per cent. teak timber	18	720			
	Gwethé ...	Forty per cent. teak timber	96	3,168			
	Kun	Half-profit principle	387	16,254			
	Kunchaung	Half-profit principle	120	5,040			
	Kunôn	Forty per cent teak timber	28	924			
	Yaukthawa	Half-profit principle	119	4,998			
		Pyinma	125	4,375			
	Minye ...	Half-profit principle	244	10,248			
	Methaw ...	Half profit principle	1	42			
	Yaukmasin	Half-profit principle	1,004	44,088			
	Daunglangya ..	Half-profit principle	170	7,140			
	Saing ...	Luzars	9	360			
		Thirty per cent. teak timber	1,107	55,350			
	Phew ..	Half-profit principle	545	22,890			
	Samo ...	Forty per cent. teak timber	62	2,046	7,708	338,974	
		Carried over			40,798	1,474,892	

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FORM No. 60 [PRESCRIBED].—*Statement of Timber and other Produce received from Forests in Sale Depôts during 1884 85*—(concluded).

Division	Forest	Description of timber, &c	Number of Pieces	Number of Cubic feet	Total of each Division Pieces	Total of each Division Cubic feet	Remarks
		Brought forward	.	. .	49,798	1 474,892	
SHWEGYIN	Padah ...	Dugyis	24	1 368			
		Luzars	107	4,280			
		Yatthits	67	1 541			
		Yard pieces	2	148			
	Mòn ..	Dugyis	21	1,197			
		Luzars	226	9 040			
		Yatthits	120	2 760			
		Yard pieces	1	74			
	Tawkaw	Half-profit principle	98	4,116			
	Kyaungpaya	Half-profit principle	507	21,204	1,178	45 818	
AGENCY	. .	Pyingado sleepers	23,332	31 930			
		Pyingado scantlings	26	65	23 358	31,995	
RANGOON	Drift timber	Dugyis	112	5,040			
		Luzars	315	14 175			
		Short pieces	73	3 285			
		Yatthits	221	9 945			
		Yard pieces	2	106			
		Squares	2	90			
		Thitkado	3	108			
		Pyinma	5	180			
		Kanyin	1	36			
		Confiscated teak scantlings	764	1,676	1,498	34,641	
SHWEGYIN	Drift timber	Dugyis	18	810			
		Luzars	43	1,935			
		Short pieces	6	270			
		Yatthits	14	630			
		Yard pieces	1	62			
		Pyinma	4	114			
		Thitkado	14	522	100	4,373	
WESTERN	Drift timber	Dugyis	13	585			
		Luzars	34	1,530			
		Short pieces	3	135			
		Yatthits	11	495	61	2 745	
AGENCY OFFICE	Drift timber	Dugyis	225	10 069			
		Luzars	376	16,920			
		Short pieces	129	5,805			
		Yatthits	159	7,155			
		Yard pieces	9	477			
		Squares	94	4,230			
		Thitkado	16	592			
		Pyinma	15	555			
		Kanyin	5	185			
		Woods	34	1,258	1,062	47,246	
WESTERN	Bassein	Kanyin	231	8,791			
		Kashut	171	6 746			
		Talainggyaung	5	161			
		Kyaungdouk	4	138			
		Myaukngo	1	54			
		Tinbye	1	30			
		Teak	497	21,371			
		Telegraph posts	500	2,042			
		Pyingado	1 808	66,208			
		Slabs	3,194				
		Sleepers	15,670	23,505			
		Drift teak	808	13,244			
		Do other kinds	2	60	22,392	142,449	
		GRAND TOTAL		. . .	99,442	1 784,159	
		Abstract of the several Divisions					
		Teak logs	36 574	1,510,322	. .		
		Other kinds, logs	2 543	90 993			
		Ditto, posts	500	2,042			
		Ditto, sleepers	30,002	55,435			
		Ditto, slabs	3,194				
		Ditto, scantlings	14,798	23,058			
		Teak drift logs	2,168	96 993			
		Ditto scantlings	764	1,676			
		Other kinds, drift logs	99	3,640			
		Total	99,442	1,781 159	.		

FORM No. 61.—*Sale of Timber and other Produce cut and collected by Government Agency during 1884-85.*

Division.	Depôt or locality.	Produce sold. Description.	Number or quantity.	Cubic feet.	Remarks.
		TENASSERIM CIRCLE.			
		Sold from Depôts.			
SALWEEN	Kado and Battery Point Depots.	Teak pieces and crooks	3,213	20,059	Lower Salween forests.
		Teak crooks	194	776	Kolun forests.
		Teak logs	26	1,182	Foreign.
		Teak logs	22	1,085	Drift.
		Pyinma logs	30	1,321	
		Ingyin logs	18	545	
		Teak squares	4	55	
		Total ...	3,507	25,023	
EAST SALWEEN .	Ditto	Teak logs and pieces	6,600	203,994	Thaungyin forests.
		Teak pieces and crooks . ..	1,717	20,700	Hlaingbwè forests.
		Teak logs and pieces	488	18,523	Haungtharaw
		Padauk logs .	25	985	
		Pyinma logs	1,028	64,390	
		Thitka logs	60	2,805	
		Thitkado	30	1,005	
		Total ...	10,548	342,182	
WEST SALWEEN .	Ditto	Teak logs and pieces	1,342	31,204	
		Teak pieces and crooks	2,040	20,336	
		Ditto ditto	1,109	7,830	
		Pyinma logs	209	9,463	
		Total ..	4,700	71,893	
ATARAN	Ditto ...	Teak logs, pieces, and crooks ...	7,205	75,223	
		Padauk logs and pieces .	242	8,082	
		Pyinma logs	681	29,133	
		Thitka logs	266	22,377	
		Ingyin logs	21	844	
		Petwun logs	7	136	
		Padauk branches	1,514	2,357	
		Padauk log ends	26	...	
		Total ...	9,962	138,152	
SOUTH TENASSERIM	Sinsake	Thingan logs	13	693	
		Kamaung logs	11	350	
		Thitka logs	40	2,672	
		Che logs	21	609	
		Kyezè logs	2	58	
		Sleepers, large	550	1,910	
		Do. small	15,938	21,250	
		Scantlings 4″ × 4″	200	50	
		Do. 4″ × 3″	478	299	
		Do. 3″ × 2″	209	52	
		Do. 10′ × 5″ × 2½″	578	486	
		Total ...	18,040	28,431	
KADO	Kado and Battery Point.	Teak logs	5,427	119,170	
		Thiya logs	6	180	
		Pyinma logs	11	360	
		Jungle logs	6	180	
		Thitpyu logs	3	90	Drift.
		Mango logs	4	120	
		Thitka logs	2	60	
		Thitkado logs	1	20	
		Pine logs	1	40	
		Total ...	5,461	120,220	
		GRAND TOTAL ...	52,218	725,901	
		Sold Locally.			
ATARAN . .	.....	Pyingado posts	26	151	
SOUTH TENASSERIM DIVISION	Commercial wharf, Tavoy	Tagu logs	2	108	
		Pyinma logs	1	53	
		Thingan logs	1	18	
		Tagat logs	1	38	
		Yamané logs	1	53	
		Kanzo logs	2	71	Drift.
		Thitsho logs	5	273	
		Pyingado logs	1	45	
		Kyezè logs	1	42	
		Teak	11	575	
KADO	Mergui	Teak	4	273	
	Mibôn	Teak	16	260	
		Total ...	72	1,960	

FORM No. 61.—*Sale of Timber and other Produce cut and collected by Government Agency during 1884-85*—(concluded).

Division.	Depôt or locality	Produce sold			Remarks.
		Description	Number or quantity	Cubic feet	
		TENASSERIM CIRCLE—(concld.).			
		ABSTRACT OF THE SEVERAL DIVISIONS.			
		Sold from Depôts.			
		Teak logs, pieces, and crooks	29,383	592,232	
		Padauk logs and pieces ...	267	9,067	
		Pyinma logs	2,559	124,637	
		Thitka logs	368	28,004	
		Thitkado logs ...	31	1,635	
		Ingyin logs	39	1,389	
		Petwun logs ...	7	186	
		Padauk branches	1,514	2,357	
		Teak squares	4	55	
		Thingan logs ...	13	695	
		Kamaung logs	11	350	
		Che logs	21	609	
		Kyezo logs ...	2	58	
		Thiya logs	6	180	
		Jungle logs	6	180	
		Thitpyu logs ...	3	90	
		Mango logs	4	120	
		Pine logs	1	40	
		Padauk log ends	26		
		Sleepers large (pyingado)	550	1,010	
		Do, small (do) ...	15,938	21,250	
		Scantlings 4" × ½" ...	200	50	
		Do 4" × 3" ...	478	299	
		Do. 3" × 2"	209	52	
		Do. 10' × 5" × 2½"	578	486	
		Total	52,218	725,901	
		Sold Locally			
		Pyingado posts ...	26	151	
		Drift teak logs	31	1,108	
		Tagu logs ...	2	108	
		Pyinma logs	1	53	
		Thingan logs	1	18	
		Tagat logs	1	38	
		Kamané logs	1	53	
		Kanzo logs	2	71	
		Thitshu logs ...	5	273	
		Pyingado logs	1	45	
		Kyezé logs ...	1	42	
		Total	72	1,960	

FORM No. 61.—*Sale of Timber and other Produce cut and collected by Government Agency during 1884-85.*

Division	Forest	Description of timber, &c	Number of		Total of each division		Remarks.
			Pieces.	Cubic feet.	Pieces.	Cubic feet	
		PEGU CIRCLE.					
		PART I.					
		Sold from Depôts.					
AGENCY ...		Teak logs ...	19,301	8,83,964			
		Thitka logs ...	248	9,929			
		Kanyin logs ...	106	3,879			
		Pyinma logs ...	190	6,977			
		Htaukyan logs ...	10	380			
		Pyingado sleepers ...	23,332	34,998			
		Pyingado scantlings ...	14,598	23,058			
		Teak drift logs ...	267	11,818			
		Teak scantlings confiscated ...	764	1,676			
		Teak sea drift logs ...	118	4,553			
		Other kinds drift ...	139	4,865	59,073	986,097	
		Carried forward	..	.	59,073	986,097	

FORM No. 61.—*Sale of Timber and other Produce cut and collected by Government Agency during 1884-85.*—(concluded).

Division.	Forest	Description of timber, &c.	Number of Pieces.	Number of Cubic feet.	Total of each division. Pieces.	Total of each division. Cubic feet.	Remarks
		Brought forward ...	...	...	59,073	986,007	
		PEGU CIRCLE—(concluded.)					
		PART I—(concluded).					
		Sold from Depôts.—(concluded).					
WESTERN ...	.....	Teak logs	141	2,179			
		Pyinma logs	78	2,886			
		Kanyin logs	90	3,555			
		Kashit logs	111	4,289			
		Thalainggyaung logs	5	161			
		Kyaungdauk logs	4	128			
		Maungmyo logs	1	54			
		Thabaya logs	1	39			
		Pyingado logs	1,827	66,639			
		Pyingado slabs	1,418	...			
		Teak drift logs	153	6,753			
		Pyingado telegraph posts ...	500	2,042	4,320	88,725	
		Total Part I	...	...	63,402	1,074,822	
		Sold Locally.					
WESTERN ...	...	Waif pyingado	2	60	2	60	
THARRAWADDY	..	Teak logs	21	831			
		Other, kinds logs	32	870			
		Ditto, posts	10	200	63	1,901	
PROME ...	.	Teak logs	765	34,120			
		Teak posts	164	4,100			
		In logs	214	7,901			
		Thiya logs	130	4,821			
		Ingyin logs	147	5,670			
		Drift teak logs	41	1,740			
		Do. other kinds	3	115	1,484	58,467	
TOUNGOO ...	..	Teak logs	588	25,470			
		Kanyin logs	4	177			
		Pyinma logs	3	143			
		Thitka logs	37	1,445			
		Drift teak logs	135	5,835			
		Do. other kinds ...	21	765	788	33,835	
SHWEGYIN ...		Teak logs	758	31,765			
		Do. sleepers	7,000	10,500			
		Other kinds, sleepers . .	11,401	17,101			
		Drift teak logs	214	9,324			
		Do. other kinds	116	4,030	19,489	72,720	
RANGOON ...	.....	Teak logs	175	7,875			
		Pyingado poles	4	100	179	7,975	
		Total Part II ...	...	...	22,005	174,958	
		Total Parts I and II ...	...	.	85,407	1,249,780	
		Abstract of Depôt Sales.					
		Teak logs	19,442	886,143			
		Thitka logs	248	9,950			
		Kyaungdauk logs	4	128			
		Kanyin logs	196	7,434			
		Kashit logs	111	4,289			
		Pyinma logs	268	9,863			
		Htaukyan logs	10	380			
		Thalainggyaung logs	5	161			
		Maungmyo logs	1	54			
		Thabaya logs	1	39			
		Pyingado logs	1,827	66,639			
		Do. sleepers	23,392	34,998			
		Do. scantlings	14,598	23,058			
		Do. slabs	1,418	...			
		Do. telegraph posts ...	500	2,042			
		Teak drift logs	420	18,571			
		Do. scantlings confiscated ...	764	1,676			
		Do. sea drift logs	118	4,553			
		Other kinds drift logs	130	4,865			
		Total Part I ...	63,402	1,074,822			
		Abstract of Local Sales.					
		Teak logs	2,327	100,061			
		Do. posts	164	4,100			
		Do. sleepers	7,000	10,500			
		In logs	214	7,901			
		Thiya logs	130	4,821			
		Ingyin logs	147	5,670			
		Kanyin logs	4	177			
		Pyinma logs	3	143			
		Thitka logs	37	1,445			
		Pyingado poles...	4	100			
		Other kinds, logs	32	870			
		Do., sleepers	11,401	17,101			
		Do, posts	10	200			
		Drift teak logs	390	16,899			
		Do other kinds	142	4,970			
		Total Part II ...	22,005	174,958			
		Total Parts I and II ...	85,407	1,249,780			

ANNUAL FORM No. 62 [PRESCRIBED].—*Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1884-85.*

Particulars	Number or quantity.	Cubic feet.	Total of each head: Number or quantity	Total of each head: Cubic feet.
TENASSERIM CIRCLE				
Balance at the commencement of the year				
Salween Division.				
Teak logs, foreign	1	115		
Teak crooks, Lower Salween	458	2,748		
Pyingado sleepers, small	238	275		
Thitka sleepers	8	27		
Pyingado planks	8	429		
Pyinma scantlings	1	65		
Teak scantlings		18	714	3,677
East Salween Division.				
Teak logs and pieces, Thaungyin.	143	5,048		
Padauk logs	113	2,428		
Thitkado logs	6	90		
Thingan boat hulls	3	266	265	7,832
West Salween Division.				
Teak logs	3	209		
Teak pieces and crooks	520	3,120		
Pyingado sleepers, large	140	485	663	3,814
Atavan Division.				
Teak logs, pieces, and crooks	1,054	7,000		
Padauk logs	107	2,907		
Thitka logs	3	192		
Sit logs	6	115		
Ingyin logs	27	904		
Yamanè logs	14	529		
Thitya logs	8	304		
Petwun logs	25	507		
Pyingado logs	15	304		
Padauk planks Tons	30	1,505	1,289	14,267
Kado Division.				
Drift timber	1,754	63,070		
Foreign teak	44,407	1,944,230		
Foreign woods, other kinds	27	1,385		
British teak	5,068	66,104		
British woods, other kinds	74	1,551	51,330	2,077,240
South Tenasserim Division.				
Teak logs	1	52		
Pyinma logs	60	3,125		
Thitka logs	68	4,556		
Kanzo logs	2	71		
Anan logs	10	316		
Kyezè logs	3	100		
Ché logs	21	609		
Yamanè logs	18	580		
Thingan logs	111	5,296		
Tagu logs	1	45		
Zinbyun logs	1	13		
Padauk logs	38	3,451		
Tagat logs	1	38		
Pyingado sleepers, large	1,518	5,155		
Pyingado sleepers, small	935	1,252		
Pyingado scantlings	887	401		
Pyingado scantlings Tons	7	352	3,682	25,352
Total balance	..	...	57,943	2,132,182
Received from the Forests in Depôts				
Teak logs, pieces, and crooks	30,128	622,588		
Thitka logs	332	25,501		
Thitkado logs	28	1,630		
Padauk logs and pieces	352	8,563		
Pyinma logs	2,615	120,431		
Ingyin logs	81	2,623		
Thingan logs	100	4 945		
Padauk branches	1,647	2,495		
Thitpyu logs	1	30		
Jungle logs	11	398		
Mango logs	6	150		
Pine logs	1	40		
Thiya logs	2	80		
Thitshu logs	6	329		
Tagu logs	2	83		
Pyingado logs	1	45		
Scantlings 10 feet by 5 inches by 2½ inches (pyingado)	508	503		
Sleepers large, ditto	318	936		
Do., small, ditto	29,070	38,760	65,308	836,130
Carried over	...	...	123,251	2,968,312

Particulars	Number or quantity.	Cubic feet.	Total of each head: Number or quantity.	Total of each head: Cubic feet
TENASSERIM CIRCLE.				
Timber removed by purchasers from depôts				
Teak logs, pieces, and crooks	29,383	532,232		
Padauk logs and pieces	267	9,067		
Pyinma logs	2,559	124 667		
Thitka logs	368	28,004		
Thitkado logs	31	1,625		
Ingyin logs	39	1,889		
Petwun logs	7	136		
Padauk branches	1 514	2,357		
Teak squares	4	55		
Thingan logs	13	695		
Kamaung logs (or pyinma)	11	350		
Che logs	21	609		
Kyezè logs	2	58		
Thiya logs	6	180		
Jungle logs	6	180		
Thitpyu logs	3	90		
Mango logs	4	120		
Pine logs	1	40		
Padauk log ends	26	..		
Sleepers, large (pyingado)	550	1,910		
Sleepers, small (do.)	15,038	21,250		
Scantlings, 4 inches by ½ inch (pyingado)	200	50		
Scantlings, 4 inches by 3 inches (pyingado)	478	209		
Scantlings, 3 inches by 2 inches (pyingado)	209	52		
Scantlings 10 feet by 5 inches by 2½ inches (pyingado)	578	486	52,218	725,001
Sold locally				
Pyingado posts	26	151		
Drift teak logs	31	1,108		
Tagu logs	2	108		
Pyinma logs	1	53		
Thingan logs	1	18		
Tagat logs	1	38		
Yamanè logs	1	53		
Kanzo logs	2	71		
Thitshu logs	5	273		
Pyingado logs	1	45		
Kyezè logs	1	42	72	1,960
Number of logs cleared up to date on payment of duty from depôts				
Foreign teak	154,190	6,167,600		
Foreign woods, other kinds	27	1,385		
British teak	2,048	34,044		
British woods, other kinds	74	1,551	156,939	6,204,580
Number of logs delivered to claimants on payment of salvage.	2,604	102,067	2,604	102,067
Transferred to Salween division for conversion.	347	10,753	347	10,753
Converted in depôts.				
Thaungyin logs and pieces	16	983		
Methalauk logs	3	105		
Drift logs and pieces	150	5,708		
Padauk (For Edinburgh Forestry Exhibition.)	1	31		
Thitka (For Edinburgh Forestry Exhibition.)	1	31		
Thitkado (For Edinburgh Forestry Exhibition.)	1	25		
Ingyin (For Edinburgh Forestry Exhibition.)	1	27		
Thitya (For Edinburgh Forestry Exhibition.)	1	36	183	7,036
Used by the department.				
Padauk logs	24	480		
Ingyin logs	20	600		
Pyingado logs	15	304		
Teak squares	13	598		
Teak scantlings Tons	52	2,613		
Pyingado planks "	8	429		
Padauk planks "	29	1,453		
Pyinma scantlings "	1	65		
Teak shingles No.	38,150	633	38,312	7,175
Carried over	.		250,675	7,059,472

ANNUAL FORM No. 62 [PRESCRIBED].—*Account of Timber and other Produce cut or collected by Government Agency, &c.*—(continued).

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
TENASSERIM CIRCLE—concluded.				
Brought forward ...	...		123,251	2,968,312
Number of Logs entered during 1884-85.				
Foreign teak ...	201,828	7,905,170		
Foreign woods, other kinds	59	2,360		
British teak ...	3,724	90,740		
British woods, other kinds	143	4,000		
			205,754	8,002,270
Received from the Forest and sold Locally.				
Drift teak logs	16	260		
Pyingado posts	26	151		
			42	411
Received by Conversion in Depôts.				
Teak squares	17	653		
Teak scantlings, &c. Tons	64	3,235		
Teak shingles No.	38,150	633		
Log ends	26	...		
			38,257	4,521
Received by transfer from Kado Revenue Division.				
Teak logs drift	310	9,769		
			310	9,769
GRAND TOTAL ...	...	...	367,614	10,985,283
PEGU CIRCLE.				
Opening Balance.				
Agency—				
Teak logs	15,512	712,784		
Do. sleepers ...	57	85		
Thitka logs ...	248	11,656		
Pyinma logs ...	183	8,418		
Teak drift logs .	217	9,810		
Other kinds, drift logs...	59	2,610		
			16,276	745,363
Tharrawaddy—				
Teak logs ..	2,407	100,730		
Do. scantlings .	9	8		
Do. drift logs ...	5	230		
Other kinds, drift logs...	12	420		
			2,433	110,388
Prome—				
Teak posts	115	4,600		
In logs	214	7,490		
Thiya and ingyin logs	283	9,905		
Teak drift logs ...	35	1,604		
Other kinds, drift logs ..	1	35		
			648	23,634
Carried over ...	...	...	19,357	879,985

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
TENASSERIM CIRCLE—concluded.				
Brought forward ...	...	...	250,675	7,059,472
Balance at close of the year.				
Salween Division. Teak logs, foreign ...	60	5,221		
Teak logs and pieces (drift).	129	2,886		
Ingyin logs ...	14	529		
Pyingado sleepers, small.	238	275		
Titya sleepers ...	8	27		
Teak scantlings Tons.	12	640		
			461	9,578
East Salween. Teak logs, Thaungyin	27	720		
Padauk logs ...	88	1,443		
Thitkado logs ...	2	60		
Thingan boat hulls ...	3	266		
			120	2,498
West Salween. Teak logs ...	17	997		
Pyingado sleepers ..	140	485		
			157	1,482
Ataran Division. Padauk logs and pieces	192	2,877		
Pyinma logs ...	60	1,891		
Ingyin logs ...	34	982		
Thitka logs .	6	330		
Sit logs	6	115		
Yamane logs ...	14	529		
Thitya logs ...	7	268		
Potwun logs ...	18	371		
Thingan logs ..	108	4,905		
Padauk branches ...	133	138		
Padauk planks Tons.	1	52		
			579	12,45
Kado Division. Drift timber ...	1,609	51,958		
Foreign teak ..	92,045	3,681,800		
Foreign woods, other kinds.	59	2,360		
British teak .	6,144	122,800		
British woods, other kinds.	143	4,000		
			100 000	3,862,918
South Tenasserim Division. Thitka logs ...	28	1,884		
Yamane logs ...	17	527		
Anan logs	10	316		
Kamaung logs (pyinma.)	49	2,775		
Thingan logs ...	97	4,523		
Padauk logs ...	38	3,451		
Drift: Tagu logs	1	20		
Drift: Zinbyun ...	1	13		
Drift: Thitshu ...	1	56		
Scantlings, 4½ feet by ½ feet (pyingado)	7	352		
Scantlings, 10 feet by 5 inches by 2½ inches (pyingado).	20	17		
Sleepers, large (pyingado).	1,286	4,181		
Sleepers, small (pyingado).	14,067	18,762		
			15,622	36,877
GRAND TOTAL ..	...	...	367,614	10,985,283
PEGU CIRCLE.				
Removed by purchasers from Depôts.				
Teak logs	19,442	886,143		
Kanyin logs	196	7,434		
Thitka logs	248	9,929		
Talainggyaung logs .	5	161		
Kyaungdauk logs ...	4	128		
Myaungmyo logs ...	1	54		
Thabya logs	1	39		
Pyingado logs	1,827	66,630		
Taukyan logs ...	10	380		
Pyinma logs	268	9,863		
Kashit logs	111	4,289		
Other kinds, posts ...	500	2,042		
Ditto, scantlings ..	14,598	23,058		
Ditto, slabs ...	1,418	...		
Ditto, sleepers ...	23,332	34,998		
Drift teak logs	538	23,124		
Ditto scantlings ...	764	1,676		
Drift other kinds, logs ...	139	4,865		
			63,402	1,074,822
Carried over ...	...	..	63,402	1,074,822

ANNUAL FORM No. 62 [PRESCRIBED].—*Account of Timber and other Produce cut or collected by Government Agency, &c.*—(concluded).

Particulars	Number or quantity	Cubic feet	Total of each head. Number or quantity	Total of each head. Cubic feet
PEGU CIRCLE—concld				
Brought forward	..	..	19,357	670,383
Opening Balance—concld.				
Western—				
Pyinma logs	78	2,705		
Pyingado logs	19	665		
Teak drift	48	2,188	145	5,558
Toungoo—				
Teak logs	185	6 190		
Pyinma logs	43	1 475		
Kanyin logs	4	140		
Thitka logs	30	1,030		
Teak drift logs	11	506	223	9 281
Shwegyin—				
Teak logs	567	25 932		
Other kinds, sleepers	6,192	9,198		
Teak drift logs	494	19 764		
Other kinds, drift logs	453	15,735	7,586	70,629
Total balance	..		27,311	964,848
Received from Forests by Extraction				
Teak logs	32 712	1 941,192		
Do planks	696			
Do sleepers	7 000	10 500		
Do paddy field	4 253	148,855		
Other kinds, logs	7,908	292 596		
Ditto, sleepers	1 805	2,707	54,374	1,795,850
Received to account of 1883-84				
Teak sleepers	2,000	3 000		
Other kinds, sleepers	4 980	7,470	6 980	10,470
Received from Forests and sold locally				
Teak logs	1,476	60 516		
Do posts	141	3 525		
Thitka logs	36	1 312		
Pyinma logs	1	37		
Thingan logs	1	37		
Unreserved logs	30	1,110		
Do posts	10	200		
Pyingado poles	4	80	1 699	66 837
Drift collected in various divisions and disposed of locally				
Teak logs	3,154	129 314		
Other kinds, logs	51	1,785	3,205	131,099
Received into depôts from forests				
Teak logs	36,574	1,510,322		
Other kinds, logs	2,548	90,993		
Ditto, posts	500	2,042		
Ditto sleepers	20 002	55,435		
Ditto slabs	3,191			
Ditto, scantlings	14,598	23,058		
Teak drift logs	2,168	96 993		
Do scantlings	764	1,676		
Other kinds drift logs	99	3,640	99,442	1,784,159
GRAND TOTAL	..	.	193,011	4 753,263

Particulars	Number or quantity	Cubic feet	Total of each head. Number or quantity	Total of each head. Cubic feet
PEGU CIRCLE—concld				
Brought forward	..	...	63,402	1,074,822
Sold locally				
Teak logs	2 327	160 061		
Do sleepers	7,000	10 500		
Do posts	164	4 100		
Other kinds, logs	571	21 127		
Ditto sleepers	11,401	17,101		
Ditto posts	10	200		
Teak drift logs	390	16 899		
Other kinds drift logs	142	4 970	22 005	174 958
Used by the department, lost, written off, &c				
Other kinds, logs	34	1 258		
Drift teak logs	20	860		
Do other kinds	2	70	56	2 188
Returned to claimants				
Teak logs	4,464	191 952		
Other kinds, logs	14	490	4,478	192,442
Converted locally				
Other kinds, logs	7,104	262,848	7,104	262,848
Transferred to Depôts				
Teak logs	34,925	1,420 696		
Other kinds logs	302	12 174		
Drift teak logs	63	2,709		
Do other kinds	39	1,365	35,329	1,436,944
Closing balance				
Agency—				
Teak logs	32,288	1,339,240		
Do sleepers	57	85		
Other kinds logs	199	8 578		
Drift teak logs	110	3,658		
Do other kinds, logs	3	71	32 657	1,351,632
Tharrawaddy—				
Teak paddy field	4,253	148,855		
Do planks	696			
Do scantlings	9	8		
Do drift logs	5	230		
Other kinds drift logs	12	420	4,975	149,513
Rangoon—				
Other kinds, logs	507	18,759	507	18,759
Prome—				
Teak logs	4	172		
Do posts	92	2 300		
Do drift logs	13	559		
Other kinds, drift logs	1	35	110	3,066
Western—				
Teak logs	356	15,308		
Other kinds, logs	201	7,437		
Ditto, slabs	1,776			
Ditto, sleepers	15,670	23,505		
Teak drift logs	75	3 225	18,078	49,475
Toungoo—				
Teak logs	41	1,763		
Other kinds logs	36	1,382		
Teak drift logs	8	344	85	3,439
Shwegyin—				
Teak sleepers	2 000	3,000		
Other kinds sleepers	1,516	2,274		
Teak drift logs	386	16 598		
Other kinds, drift logs	323	11,305	4,225	33,177
GRAND TOTAL		.	193,011	4 753,263

ANNUAL FORM No. 62 [PRESCRIBED].—*Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1884-85.*

Particulars	Tenasserim Circle.		Pegu Circle.		Total of each head.	
	Number or quantity	Cubic feet.	Number or quantity	Cubic feet.	Number or quantity	Cubic feet.
Total opening balance ...	57,943	2,132,182	27,311	964,848	85,254	3,097,030
Received from forests in depôts.						
Teak logs, pieces, &c.	30,128	622,588	36,574	1,510,322	66,702	2,132,910
Other kinds	5,194	173,343	2,543	90,993	7,737	264,336
Ditto scantlings	598	503	14,598	23,058	15,196	23,561
Ditto sleepers, large	318	936	39,072	55,435	68,390	95,131
Ditto sleepers, small	29,070	38,760				
Ditto posts	...	...	500	2,042	500	2,042
Ditto slabs	..	...	3,194	..	3,194	...
Teak drift logs	...	...	2,168	96,993	2,168	96,993
Do. scantlings	..	...	764	1,676	764	1,676
Other kinds drift logs	...	...	99	3,640	99	3,640
Total ...	65,308	836,130	99,442	1,784,159	164,750	2,620,289
Received from forests and sold locally.						
Teak logs	...	...	1,476	60,516	1,476	60,516
Do. posts	...	...	141	3,525	141	3,525
Other kinds logs	..	...	68	2,516	68	2,516
Ditto posts and poles	26	151	14	280	40	431
Teak drift logs	16	260	...	.	16	260
Total ...	42	411	1,699	66,837	1,741	67,248
Received from forests by extraction.						
Teak logs	...	...	32,712	1,341,192	32,712	1,341,192
Do. planks	...	...	696	...	696	
Do. sleepers	...	...	7,000	10,500	7,000	10,500
Do paddy field	...	..	4,253	148,855	4,253	148 855
Other kinds logs	.	...	7,908	292,596	7,908	292,596
Ditto sleepers	...	..	1,805	2,707	1,805	2,707
Total ...	..	..	54,374	1,795,850	54,374	1,795,850
Drift collected in various divisions and disposed of locally.						
Teak logs	...	...	3,154	129,314	3,154	129,314
Other kinds logs	...	..	51	1,785	51	1,785
Total ...	...	...	3,205	131,099	3,205	131,099
Received to account of 1883-84.						
Teak sleepers	...	...	2,000	3,000	2,000	3,000
Other kinds	...	...	4,980	7,470	4,980	7,470
Total ...	...	...	6,980	10,470	6,980	10,470

Particulars.	Tenasserim Circle		Pegu Circle.		Total of each head.	
	Number or quantity	Cubic feet.	Number or quantity.	Cubic feet.	Number or quantity.	Cubic feet.
Received by purchasers from depôts.						
Teak logs	29,383	532,232	19,442	886,143	48,825	1,418,375
Do. squares	4	55	...	..	4	55
Other kinds logs	4,878	169,567	2,671	96,916	7,549	266,483
Ditto sleepers	16,488	23,160	23,332	34,998	39,820	58,158
Ditto posts	.	...	500	2,042	500	2,042
Ditto scantlings	1,465	887	14,598	23,058	16,063	23,945
Ditto slabs	...	...	1,418	.	1,418	..
Teak drift logs	...	...	538	23,194	538	23,194
Do. scantlings	...	...	764	1,676	764	1,676
Other kinds drift logs	...	...	139	4,865	139	4,865
Total .	52,218	725,901	63,402	1,074,822	115,620	1,800,723
Sold locally.						
Teak logs	...	...	2,327	100,061	2,327	100,061
Do sleepers	..	...	7,000	10,500	7,000	10,500
Do posts	...	...	164	4,100	164	4,100
Other kinds logs	15	701	571	21,127	586	21,828
Ditto sleepers	...	...	11,401	17,101	11,401	17,701
Ditto posts	26	151	10	200	36	351
Teak drift logs	31	1,108	390	16,899	421	18,007
Other kinds drift logs	...	...	142	4,970	142	4,970
Total ...	72	1,960	22,005	174,958	22,077	176,918
Used, lost, written off, &c.						
Teak squares	13	598	...	...	13	598
Do. scantlings	52	2 613	...	...	52	2,613
Do shingles	38,150	633	...	...	38,150	633
Other kinds logs, &c.	97	3,341	34	1,248	131	4,589
Teak drift logs	...	...	20	860	20	860
Other kinds drift logs . ..	...	...	2	70	2	70
Total ...	38,312	7,175	56	2,188	38,368	9,363
Returned to claimants.						
Teak logs	2,604	102,067	4,464	191,952	7,082	294,509
Other kinds logs			14	490		
Total .	2,604	102,067	4,478	192,442	7,082	294,509

ANNUAL FORM No. 62 [PRESCRIBED].—*Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1884-85*—(concluded).

Particulars.	Tenasserim Circle		Pegu Circle		Total of each head	
	Number or quantity	Cubic feet.	Number or quantity	Cubic feet.	Number or quantity	Cubic feet.
Received by transfer from Kado Revenue Division						
Teak drift logs	310	9,769	...	...	310	9,769
Number of logs entered during 1884-85						
Teak, foreign	201,828	7,905,170	...	..	201,828	7,905,170
Other kinds, foreign	59	2,360	...	...	59	2,360
Teak, British	3,724	90,740	...	...	3,724	90,740
Other kinds, British	143	4,000	...	...	143	4,000
Total ...	205,754	8,002,270	...	...	205,754	8,002,270
Received by conversion in depots.						
Teak squares	17	653	...	...	17	653
Do scantlings, &c. .. Tons	64	3,235	..	...	64	3,235
Do shingles	38,150	633	...	...	38,150	633
Log ends	26	..	...	...	26	...
Total ...	38,257	4,521	...	...	38,257	4,521
GRAND TOTAL ..	367,614	10,985,283	193,011	4,753,263	560,625	15,738,546

Particulars.	Tenasserim Circle		Pegu Circle.		Total of each head.	
	Number or quantity	Cubic feet.	Number or quantity	Cubic feet.	Number or quantity.	Cubic feet.
Duty paid and cleared from depots.						
Teak, foreign	154,190	6,167,600	...	...	154,190	6,167,600
Other kinds, foreign	27	1,385	...	...	27	1,385
Teak, British	2,648	34,044	...	...	2,648	34,044
Other kinds, British	74	1,551	...	...	74	1,551
Total ..	156,939	6,204,580	...	...	156,939	6,204,580
To Salween division, for conversion .	347	10,753	...	...	347	10,753
Converted in depôts						
Thaungyi logs, &c	16	983	...	...	16	983
Methalauk logs, ...	3	105	...	...	3	105
Drift logs and pieces ...	159	5,798	...	..	159	5,798
Other kinds logs	5	150	...	...	5	150
Total ...	183	7,036	..	...	183	7,036
Transferred to depôts.						
Teak logs	...	.	34,925	1,420,696	34,925	1,420,696
Other kinds logs	.	...	302	12,174	302	12,174
Teak drift logs	...	...	63	2,709	63	2,709
Other kinds drift logs	..	...	39	1,365	39	1,365
Converted locally	...	..	35,329	1,436,944	35,329	1,436,944
Other kinds logs	...	...	7,104	262,848	7,104	262,848
Closing Balance						
Teak logs, foreign	92,105	3,687,021		.	92,105	3,687,021
Do, paddy field			4,253	148,855	4,253	148,855
Do, British	6,171	123,529	.	.	6,171	123,529
Do, logs, &c.	17	997	33,477	1,358,783	33,494	1,359,780
Do, sleepers	...		2,057	3,085	2,057	3,085
Do, scantling	12	640	9	8	21	648
Other kinds logs, &c	922	27,966	2,719	36,106	3,641	64,072
Ditto do., foreign	59	2,360	.	...	59	2,360
Ditto do, British .. .	143	4,000	...	.	143	4,000
Ditto sleepers, large	15,739	23,730	17,186	25,779	32,925	49,509
Ditto do., small . ..						
Ditto scantlings	27	369	..	...	27	369
Ditto boat hulls	3	266	...		3	266
Teak drift logs	1,738	54,844	597	24,614	2,335	79,458
Other kinds drift logs	3	89	339	11,831	342	11,920
Total ...	116,939	3,925,811	60,637	1,609,061	177,576	5,534,872
GRAND TOTAL ...	367,614	10,985,283	193,011	4,753,263	560,625	15,738,546

FORM No. 63.—*Timber and other Produce cut, collected, and removed from the Forests by Consumers or Purchasers during the year 1884-85.*

Division	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realized during the year	Remarks
			Rs.	Rs.	
Salween ...	Pyinma logs	50	317	...	
	Pyingado logs	513	474	...	
	Pyingado posts	410	30	...	
	Thitpyu logs	1,037	1,516	...	
	Tain logs	5	5	...	
	Tain posts	140	11	...	
	In logs	45	66	...	
	Mango logs	78	117	...	
	Kanyin logs	136	198	...	
	Zinbyun logs	10	15	...	
	Katswe logs	27	40	...	
	Ôkaw logs	2	3	...	
	Myaukchaw posts	50	3	...	
	Anan logs	9	14	...	
	Thabye logs	19	28	...	
	Taungbein logs	13	17	...	
	Taungsaga logs	4	6	...	
	Thitsi logs	13	20	...	
	Thitto logs	2	3	...	
	Kadut logs	5	7	...	
	Thingan hulls	37	174	...	
	Pass XII for collection of timber	...	8	...	
Pandaw ...	Teak logs	176	388	...	From lease holder's forests
	Teak stem-pieces	52	29	...	
	Teak crooks	2,037	659	...	
	Total ...	...	4,148	4,148	
East Salween	Pyinma logs	264	2,745	...	
	Thitkado logs	2	6	...	
	Mango logs	125	240	...	
	Thitpyu logs	2	4	...	
	Kanyin logs...	85	170	...	
	Thitya logs	796	1,572	...	
	Pyingado logs	32	64	..	
	Aukchinza logs	37	74	...	
	Thitpok logs	4	8	.	
	Katswe logs	9	18	...	
	Thingan hulls logs	32	1,990	...	
	Compensation for felling two green teak trees ...	2	40	...	
	Total ...	...	6,931	6,931	
West Salween	Pyinma logs	83	561	...	
	Thingan logs	17	62	...	
	Thingan hulls	3	13	...	
	Reserved timber	...	112	...	
	Unreserved timber	...	96	...	
	Total ...	...	844	844	
Ataran ...	Pyinma logs	64	520	..	
	Pyingado logs	236	295	...	
	Pyingado posts	60	4	...	
	Pyingado poles	1,000	3	...	
	In logs	288	441	...	
	Kadut logs	6	9	...	
	Thitni logs	2	3	...	
	Kanyin logs...	1,442	2,419	...	
	Aukchinza logs	152	304	...	
	Thitya logs	1,643	2,677	...	
	Thitpyu logs	40	80	...	
	Thitto logs	45	90	...	
	Katswe logs	23	43	...	
	Mango logs	20	40	...	
	Mango poles	2,000	5	...	
	Nabe logs	30	45	...	
	Ôkaw logs	246	369	...	
	Zinbyun logs	5	8	...	
	Taungan logs	10	15	..	
	Panthaga logs	10	15	..	
	Kanzaw logs	2	3	..	
	Karawe logs	36	62	...	
	Thabye logs	20	30	...	
	Petwun logs	20	30	...	
	Kaban logs	1	1	...	
	Pantha logs	1	1	...	
	Unreserved timber	...	242	...	
	Teak logs	67	268	...	
	Teak stem-pieces	90	86	...	
	Thitka logs	74	7	...	
	Thingan hulls	132	1,399	...	
	Kaunghmu hulls	3	275	..	
	Wood-oil	...	114	...	
	Charcoal	...	34	...	
	Total ...	...	9,937	9,937	
Tavoy	Thingan hulls	37	296	...	
	Thingan logs	31	209	...	
	Thingan crooks	100	25	..	
	Karawe logs	14	56	...	
	Anan logs	4	16	...	
	Thitka logs	8	32	...	
	Thitkado lags	5	20	.	
	Kanzo logs	18	54	..	
	Kadut hulls	115	173	...	
	Carried over ...	...	941	21,860	

FORM No. 63.—*Timber and other Produce cut, collected, and removed from the Forests by Consumers or Purchasers during the year 1884-85*—(continued).

Division	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
			Rs.	Rs.	
	Brought forward ...	...	941	21,860	
Tavoy—*concluded.*	Kadut small boats ...	139	208	...	
	Kadut logs ...	263	395	...	
	Kadut yatthits	4	8	...	
	Kadut small posts	12	1	..	
	Taungbain hulls	9	5	...	
	Taungbain small boats	74	137	...	
	Taungbain logs	18	9	...	
	Taungbain small posts	50	3	..	
	Kanyin hulls	4	6	..	
	Kanyin logs	35	52	...	
	Kanyin yatthits	5	4	...	
	Tagu logs	299	448	...	
	Sanga logs ...	285	427	..	
	Thitshu logs	169	253	...	
	Kyezè logs ...	25	37	...	
	Thabyè logs	10	15	...	
	Thabyè small posts	50	3	...	
	Thitsa logs ...	23	34	...	
	Tagat logs ...	281	416	...	
	Tagat small posts	12	1	...	
	Pyingado logs	1,047	2,471	...	
	Pyingado yathits	178	134	..	
	Pyingado small posts	159	11	...	
	Pyingado crooks	210	52	...	
	Kaunghmu hulls	103	155	...	
	Kaunghmu small boats	13	19	...	
	Kaunghmu logs	15	22	...	
	Bandathat logs	18	26	...	
	Pyinma or Kamaung logs	305	448	...	
	Yat logs ...	1	1		
	Meinthau logs	166	249	...	
	Yamanè ...	47	70	...	
	Pinlepyin ...	8	12	...	
	Khaunglôn logs	10	15	...	
	Thitnin logs	12	18	...	
	Tharapi logs	17	21	...	
	Tharapi small posts ...	28	2	...	
	Thitto logs ...	133	200	...	
	Kaban logs	31	46	...	
	Kaban small posts	18	1	..	
	Zordeitpo logs	10	15	...	
	Myauklauk logs	8	12	...	
	Thayetle logs	3	5	...	
	Kyotyo small posts ...	10	1	...	
	Pazaung U small posts	4	1	...	
	Taimaka logs	3	4	.	
	Thinboan logs	3	4	...	
	Panthitya logs	1	1	...	
	Kyet-usi logs	1	1	...	
	In logs ...	5	8	...	
	Kamyin kyaing che small posts	100	7	...	
	Yun small posts	13	1	..	
	Thitpyu small posts	4	1	...	
	Thitnet small posts	3	1	..	
	Pyu small posts	250	17	..	
	Kayit logs ...	1	1	...	
	Thongyin logs	3	4	...	
	Pyuboak small posts	50	4	...	
	Taungbyin small posts	50	4	...	
	Charcoal licenses	...	0	...	
	Wood-oil licenses	...	610	...	
	Total ...	...	8,279	8,279	
Mergui	Thingan logs	523	1,861	...	
	Kanzo logs ...	126	315	...	
	Shithkaw logs	25	62	...	
	Ahmyin logs	17	43	...	
	Ahmyin yatthits	18	22	...	
	Karawè logs	14	35	...	
	Panthitya logs	4	5	...	
	In logs	2	3	...	
	Kamaung or pyinma logs	7	10	...	
	Tagu logs ...	202	303	...	
	Sanga logs ...	7	11	...	
	Tsutha logs	65	98	...	
	Taungbain logs	29	44	...	
	Himanthin logs	23	34	...	
	Pinlebeyin logs	6	9	...	
	Tauntarôn logs	9	14	...	
	Kadut logs ...	50	75	...	
	Uban logs ...	18	27	...	
	Thitya logs ...	35	53	...	
	Pyingado ...	20	30	...	
	Pyinma ...	96	144	...	
	Kyezè ...	4	6	...	
	Kyezè yatthits	73	55	..	
	Taropi logs ...	5	8	...	
	Kyanan logs	177	266	...	
	Kyanan yatthits	30	22	...	
	Thayet logs	1	1	...	
	Kanbe logs ...	1	1	...	
	Taket logs ..	12	18	...	
	Kaunghmu logs	34	51	...	
	Carried over ...	...	3,146	30,139	

FORM No. 63.—*Timber and other Produce cut, collected, and removed from the Forests by Purchasers or Consumers during the year 1884-85*—(concluded).

Division.	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
			Rs.	Rs.	
	Brought forward ...	.	3,146	30,139	
Mergui—*concld.*	Kanzo logs ...	1	1	...	
	Kanzo yatthits	25	19	...	
	Itt logs ...	1	1	...	
	Tunkuzi logs	1	1	...	
	Thitmin logs	1	1	...	
	Aukchinza logs	1	1	...	
	Thitme logs	1	1	...	
	Yamané logs	6	9	...	
	Thinbôn logs	2	3	...	
	Panthitya logs	6	9	...	
	Thitkauk logs	1	1	...	
	Yatya logs	1	1	...	
	Ma-u logs	1	1	...	
	Kuthit logs	1	1	...	
	Kanyin small posts	756	52	...	
	Kanyin poles	1,250	4	...	
	Panlôn small posts	133	10	...	
	Panlôn poles	800	2	...	
	Haungtha poles	1,250	4	...	
	Pangaw poles	600	2	...	
	Gangaw small posts ...	7	1	..	
	Charcoal licenses	...	15	...	
	Wood-oil licenses	...	771	...	
	Total ...	...	4,057	4,057	
	GRAND TOTAL ...	...	...	34,196	

FORM No. 63.—*Timber and other Produce cut, collected, and removed from the Forests by Consumers or Purchasers, including pasture, during the year 1884-85.*

Division.	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
			Rs.	Rs.	
Prome ...	Paddy field teak ... Tons	59·52	790	...	
	Teak cart wheels	5	10	...	
	Teak poles ...	42	84	...	
	Cutch trees	94	282	...	
	Unreserved woods	46	92	...	
	Ditto	97	97	...	
	Ditto	62	6	...	
	Ditto	17	...	...	
	Unreserved by Civil Department	...	425	...	
	In dugyis	10,619	17,259	...	
	Pyingado	107		...	
	Didu	250		...	
	Thiya	366		...	
	Ingyin	98		...	
	Other woods	66		...	
	In yatthits ...	6,342	8,843	...	
	Pyingado	1,834		...	
	Didu	295		...	
	Thiya	2,352		...	
	Ingyin	316		...	
	Other woods	652		...	
	In small posts	1,015	1,100	...	
	Pyingado	2,622		...	
	Didu	16		...	
	Thiya	9,473		...	
	Ingyin	2,517		...	
	Other woods	197		...	
	In poles	13,000	68	...	
	Pyingado	600		...	
	Didu	3,400		...	
	Thiya	3,700		...	
	Ingyin	1,800		...	
	Other woods	4,450		...	
	Pass fees ...	14	1	...	
	Ditto	4,110	128	..	
	Ditto	13,327	193	...	
	Ditto by Customs Department	...	1,059	30,446	II*a*.
	Charcoal permits	353	176	176	II*b*.
	Bamboos ...	7,400	19	19	II*c*.
	Cutch permits	2,398	47,920	...	
	Wood-oil	54	108	...	
	Tamarind ...	...	15	48,043	II*e*.
	Total ...	...	78,684	78,684	

Form No. 63.—*Timber and other Produce cut, collected, and removed from the Forests by Consumers or Purchasers, including pasture during the year 1884-85*—(continued).

Division.	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks
			Rs.	Rs.	
	Brought forward ..	...		78,684	
	Teak Trees.				
	27 ... ... Rs. 108 0 0				
	31 ... . 310 0 0				
	20 ... ... 300 0 0	89	891		
	7 ... ... 140 0 0				
	4 ... ... 33 0 0				
	Cutch Trees.				
	South Tharrawaddy—				
	Gwedauk kwin, 747 ... 1,876 0 0				
	Nyaulé, 1,745 ... 3,650 0 0				
	Thakolan, 6 ... 25 0 0	2,706	6,118		
	Kyaukkyidaung, 44 ... 103 0 0				
	Minhla, 164 ... 264 0 0				
	North Tharrawaddy—				
	2 Kanyin trees 4 0 0	2	4		
	Total ...	...	7,013		
	Unreserved Logs.				
	North Tharrawaddy— Rs. A. P. Rs. A. P.				
	649 ... ... 649 0 0 } 1,226 1,803 0 0				
	577 ... 1,154 0 0	2,005	3,522		
	1,246 ... ... 934 8 0 } 1,769 1,719 0 0				
	523 ... ... 784 8 0				
	South Tharrawaddy—				
	800 ... ... 800 0 0 } 2,176 3,453 0 0				
	1,277 ... ... 2,554 0 0				
	1,726 ... ... 1,294 8 0	6,508	8,650		
	2,549 ... ... 3,823 8 0 } 4,332 5,197 0 0				
	57 ... ... 78 8 0				
	Total logs ...	...	12,172		
	Teak Timber.				
	North Tharrawaddy—				
	2,281 cubic ft. 456 0 0				
	160 do. 83 0 0	2,447	539		
	South Tharrawaddy—				
	454 cubic ft. 90 12 9				
	283 do. 28 6 6				
	1,648·1 do 494 6 9				
	203·9 do. 101 15 3	2,580	716		
	Kanyin Timber.				
	North Tharrawaddy—				
	20 cubic ft. 4 8 9	182	24		
	South Tharrawaddy—				
	162 cubic ft. 19 7 0				
	Pyinma Timber.				
	North Tharrawaddy—				
	26 cubic ft. 5 3 0	26	5		
	South Tharrawaddy—				
	494·5 cubic ft. 98 9 3				
	30 do. 7 3 3				
	25 do. 4 0 0	549·5	110		
	Unreserved Posts. Total ...	...	1,394		
	North Tharrawaddy—				
	115 ... ... 8 1 3				
	300 ... ... 0 12 0	415	9		
	South Tharrawaddy—				
	64 ... ... 6 6 6				
	380 ... ... 26 10 0				
	50 ... ... 0 2 0	494	33		
	Total Posts ...	...	42	20,621	IIa.
	Charcoal Licenses—				
	North Tharrawaddy ... ... 184 8 0 }	...	193		
	South Tharrawaddy 8 8 0				
	Total Charcoal ...		193	193	IIb
	Bamboos.				
	North Tharrawaddy—				
	Payagyi ... 174,600 ... ... 436 8 0				
	Gwédauksan 84,900 ... ... 212 4 0				
	Bawbin ... 83,400 ... .. 208 8 0				
	Padinbin ... 79,900 ... ... 199 12 0				
	Mayin ... 78,900 ... ... 197 4 0				
	Magyibin ... 9,400 ... ... 23 8 0				
	Bwot .. 14,500 ... ... 36 4 0	525,600	1,314		
	Carried over ...	...	1,314	78,684	

Tharrawaddy.

FORM No. 63.—*Timber and other Produce cut, collected, and removed from the Forests by Consumers or Purchasers, including pasture, during the year 1884-85*—(continued).

Division.	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks
			Rs	Rs.	
	Brought forward ...	...	1,314	78,684	
	BAMBOOS—concluded.				
	South Tharrawaddy— Rs. A. P.				
	Gamôn ... 65,300 ... ... 163 4 0				
	Taungchaung. 24,900 ... .. 62 4 0				
	Minhla ... 30,900 ... ... 77 0 0				
	Kon Bilin ... 10,200 ... ... 25 8 0	564,600	1,411		
	Môkka ... 61,750 ... ... 154 6 0				
	Thônzè ...305,750 ... ... 764 6 0				
	Myaung .. 7,100 ... ... 17 12 0				
	Kadin Bilin ... 58,800 ... ... 147 0 0				
	Total Bamboos ...	...	2,725	2,725	IIc.
	GRAZING CATTLE.				
	North Tharrawaddy— Rs A. P				
	Kyaukkyidaung 8 8 0				
	Do. 12 12 0				
	Dawle 5 0 0				
	Do. 1 0 0	223	94		
	Kadinzauk 15 8 0				
	Gwedaukkwin 22 8 0				
	Do. 4 0 0				
	Taungnyo 24 8 0				
	South Tharrawaddy— Rs A. P.				
	Sitkwin 35 0 0				
	Do. 1 12 0				
	Thindawyo 21 0 0				
	Do. 13 0 0	260	107		
	Satpôk 16 8 0				
	Do 4 12 0				
	Kadin Bilin 12 8 0				
	Do 3 0 0				
	Total Grazing fees ...	...	201	201	IId.
	CIGAR LEAVES.				
	North Tharrawaddy— Rs A. P				
	Nyanle ...592,500 ... ... 20 10 0				
	Kangyi .. 760,000 ... ... 38 0 0	1,852,500	92		
	Minbu ...500,000 ... ... 25 0 0				
	South Tharrawaddy— Rs A. P.				
	Gamôn ... 900,000 ... ... 45 0 0				
	Taungchaung 90,000 .. ... 4 8 0				
	Myaung ... 80,000 ... ... 4 0 0	1,600,000	83		
	Sitkwin .. 250,000 ... ... 12 8 0				
	Kadin Bilin ... 340,000 ... ... 17 0 0				
	Total Cigar leaves ...	...	175		
	SHAW FIBRE BUNDLES.				
	North Tharrawaddy— Rs. A. P				
	Shwele Yoma . 1,440 ... ... 14 6 3				
	Nyanle ...1,585 ... ... 15 13 6	3,175	32		
	Bawbin 150 .. ... 1 8 0				
	South Tharrawaddy— Rs A. P.				
	Bilin ... 4,070 ... ... 40 12 0				
	Thônzè ... 11,400 ... ... 114 0 0				
	Do. ... 270 ... ... 3 6 0				
	Minhla ... 3,700 .. ... 37 0 0	22,550	226		
	Kadin Bilin ... 1,400 ... ... 14 0 0				
	Môkka ... 10 ... . 0 2 0				
	Myaung 1,650 ... ... 16 8 0				
	Gamôn ... 50 ... ... 0 8 0				
	Total Shaw bundles ...	...	258		
	CUTCH CAULDRONS.				
	North Tharrawaddy— Rs A P				
	Unreserved forests 1,289 . . 25,780 0 0	1,295	26,062		
	Bawbin reserve 6 ... .. 282 0 0				
	South Tharrawaddy— Rs. A. P.				
	Unreserved forests 363 ... .. 7,260 0 0				
	Ngapi In reserve 3 ... 90 0 0	372	7,620		
	Ditto 6 ... 270 0 0				
	Total Cauldrons ...	...	33,682		
	Carried over ...	...	34,115	78,684	

Tharrawaddy—continued.

Form No. 66.—*Timber and other Produce cut, collected, and removed from the Forests by Consumers or Purchasers, including pasture, during the year 1884-85*—(continued).

Division	Produce removed. Description.	Number or quantity	Amount of revenue.	Amount actually realised during the year	Remarks
			Rs	Rs.	
	Brought forward ...	...	34,115	78,684	
	Thekke Bundles				
	North Tharrawaddy—				
	Kangyi .. 3,050 ... . Rs 61 0 0	5,700	88		
	Yethe ... 2,650 . .. 26 8 0				
	South Tharrawaddy—				
	Minhla 300 ... 3 0 0				
	Myaung ... 100 ... ... 1 0 0				
	Thônzé ... 1,800 ... ... 18 0 0				
	Do. ... 1,000 ... ... 2 8 0	9,920	43		
	Do. ... 6000 ... ... 1 8 0				
	Sitkwin ... 670 ... ... 16 12 0				
	Do ... 50 ... ... 0 8 0				
	Total Thekke ...	...	131		
	Wood-oil Licenses.				
	North Tharrawaddy—				
	Payôkman reserve ... 1 ... 5 0 0	7	17		
	Unreserved forests ... 6 ... 12 0 0				
	South Tharrawaddy—				
	Kôn Bilin ... ... 12 .. 60 0 0				
	Thônzé ... ... 1 ... 5 0 0				
	Môkka ... ... 1 ... 5 0 0	75	201		
	Thindawye ... ... 3 ... 15 0 0				
	Unreserved forests ... 58 ... 116 0 0				
	Total Wood-oil licenses ...	82	218		
	Honey Licenses.				
	Htaukyan	...	15		
	Môkka Minhla	...	10		
	Sitkwin	...	9		
	Thakolan	...	5		
	Thindawyo	...	5		
	Total ...	...	44	34,508	II*e*
	Total Tharrawaddy ...	...		58,248	II.
Toungoo ...	Teak extracted by purchasers, tons 12·25 Logs	5	456		
	Pyinma . ... Tons	17·23	144		
	Thingan ... . ,,	48 42	425		
	License fees on unreserved woods, ... Logs	17,379	14,174		
	Total ...	...	15,199	15,199	II*a*.
	Charcoal, baskets	20,160	43	43	II*b*.
	Bamboos	53,450	134	134	II*c*.
	Dammar ... ... Viss	250	18		
	Kanyin oil ... ... ,,	2,500	184		
	Thitsi .. .. ,,	2,364	184		
	Cutch, trees	3,820	558		
	Unreserved forests shaw fibre ... ... Viss	4,260	42		
	Kanyin oil . ... ,,	60	4		
	Total Toungoo ..		990	990	II*e*.
Shwegyin ..	Teak	1,843	5,551		
	Kanyin	1,430	11,501		
	Pyinma	115	903		
	Thingan	20	131		
	Thitkado	155	1,158		
	Kaunghmu	1	8		
	Unreserved woods	22,680	23,036		
	Passing fees	...	278		
	Total ...	...	43,461	43,461	II*a*.
	Charcoal	...	372	372	II*b*.
	Wood-oil, permits	55	110	110	II*e*
	Total Shwegyin ...	.	...	43,943	
Rangoon ...	*From Unreserved Forests—*				
	License IV—				
	Thitka	55-0-8	550		
	License V—				
	Thitka ... ... Tons	114-33-0	1,021		
	Pyinma ... ... ,,	2-0-0	16		
	Kanyin ... . ,,	34-0-0	234		
	Thingan ... ... ,,	5-0-0	40		
	Total ...	155-33-0	1,311		
	Carried over ...	...	1,861	1,97,241	

Tharrawaddy—*concld.*

FORM No. 63.—*Timber and other Produce cut, collected, and removed from the Forests by Consumers or Purchasers, including pasture, during the year 1884-85*—(continued).

Division.	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
			Rs.	Rs.	
	Brought forward ...	...	1,861	197,241	
Rangoon—*continued.*	*License VI—*				
	Dugyis or luzars	1,268	2,536		
	Yatthits	1,893	1,893		
	Small posts	637	64		
	Total ...	...	4,493		
	License VII—				
	Dugyis or luzars	3,066	4,590		
	Yatthits	5,178	3,883		
	Small posts	1,924	136		
	Total ...	...	8,618		
	License XII—				
	Floating fees	1	1		
	Total ...	...	...	14,973	
	(*b*) *Ôkkan Forests—*				
	Fuel	450	4		IIa.
	License VIII—				
	Hlaing ... ... Men	753	376		
	Paunglin ... ... "	146	73		
	Pegu	45	23		
	Total ...	...	472	476	
	(*c*)—BAMBOOS.				IIb.
	Hlaing Range—				
	Ôkkan reserve	103,500	259		
	Thabyu reserve	7,300	18		
	Hlaing Yoma	5,500	14		
	Magayi reserve	55,000	137		
	Total Hlaing Range ...	...	428		
	Paunglin Range—				
	Paunglin reserve	211,600	529		
	Pegu Range—				
	South Zamayi reserve	151,500	379		
	North Zamayi reserve	12,000	50		
	Kadat	35,000	87		
	Total Pegu Range ...	...	516		
	Total Bamboos ...	...	1,473	1,473	
	(*d*)—*Grazing—*				IIc.
	Magayi, 43 buffaloes and two cows	43 and 2	22		
	Ôkkan ... Buffaloes	2	2		
	Ôkkan ... Cows	4			
	Total ...	...	24	24	
	(*e*)—OTHER MINOR PRODUCE.				IId.
	I.—Reserved Forests.				
	Hlaing Range—				
	Ôkkan reserve ... ... Shaw trees	33	16		
	Theng ... ... Cart	1	4		
	Thetkè ... ... "	4	10		
	Total ...	...	30		
	Thabyu Reserve—				
	Thetkè ... ... Cart	1	2		
	Theng ... ... "	2	8		
	Total ...	...	10		
	Magayi Reserve—				
	Thetkè ... ... Cart	11	22		
	Theng ... ... "	22	8		
	Total ...	...	30		
	Paunglin Reserve—				
	Paunglin reserve ... Shaw trees	91	46		
	Ôndôn bark ... ... Months	3	10		
	Total Paunglin Range ...	...	56		
	Pegu Range.				
	South Zamayi Reserve—				
	Shaw ... . Trees	24	12		
	Total Revenue from Reserved Forests ..	...	...	138	
	Carried over ...	...	...	197,241	

FORM No. 68.—*Timber and other Produce cut, collected, and removed from the Forests by Consumers or Purchasers, including pasture, during the year 1884-85*—(concluded).

Division.	Produce removed. Description.		Number or quantity.	Amount of revenue.	Amount actually realised during the year.	Remarks.
				Rs.	Rs.	
	Brought forward ...		...	...	197,241	
	UNRESERVED FORESTS.					
Rangoon—*concld.*	*License IX*— Cutch— Hlaing, cauldrons		5	100	...	
	License X— Kanyin-oil— Pegu range	Mon	20	40	...	
	Paunglin	"	32	64	.	
	Total ...		...	104	...	
	Total for Minor Produce ...		...	342	342	II*e*.
	TOTAL RANGOON ...		...	17,288	17,288	II.
Western ...	Kanyin	c. ft.	5,874·5	1,175	...	
	Do.	Tons	54	432		
	Pyinma	c. ft.	194·5	80	...	
	Do	Tons	33	264	.	
	Thitkado	c. ft.	13·8	3	.	
	Do.	Tons	3	24	..	
	Kashit	"	2	16	...	
	Thingan	"	1	8	...	
	Teak	c. ft.	2,594·2	765	...	
	Do.	Tons	5	113	...	
	Do.	Logs	88	871	...	
	Pyingado	..	8,078	7,847	...	
	Laba		4,195	6,973	...	
	Thabye	.	667	997	...	
	Didu		3	6	...	
	In		1,191	1,325	...	
	Do.		10	15	.	
	Sha		6	6	...	
	Theya		27	41	...	
	Penibyu		165	131	...	
	Letpan		4	8	...	
	Myaukchaw		5	5	.	
	Taungbin		2	3		
	Tein		191	287	...	
	Taungthaba		10	15	...	
	Lame		140	105	..	
	Kyanaw		569	559	...	
	Thayet		1	1	...	
	Htaukyan		39	78	...	
	Nubbe		103	104	...	
	Titto		152	129		
	Talainggyaung		292	438	...	
	Poles		56,025	171	...	
	Posts		10,127	828	...	
	Removal charges		...	192	...	
	Civil Department		...	419	...	
	Total ...		...	23,893	23,893	II*a*.
	Firewood and charcoal		...	89	89	II*b*.
	Cutch		...	1,254	1,254	II*c*.
	Total ...		...	25,236	25,236	II.
Agency ...	Poles		23,885	179	...	Agency.
	Fuel		1,062,550	1,741	..	
	Boats		3	9	...	Shwegyin.
	Pyingado		...	505	...	Sandoway
	Pyingado and kamaung		...	1,773	...	Arakan.
	Pyinma		...	1	...	
	Pyingado		85	449	...	Akyab.
	Kamaung		...	105	..	
	Total ...		.	4,762	4,762	
	Wood-oil		...	100	100	Sandoway and Arakan.
	Total ...		...	4,862	4,862	
	GRAND TOTAL ...		...	...	244,627	

FORM No. 64 [SUGGESTED].—*Statement showing the Revenue derived and Expenditure incurred on, Timber and other Produce sold to Public Departments from Depôts in the Tenasserim Circle during 1884-85.*

Division.	Name of department.	Particulars of supplies.	Amount supplied.	Rate. At	Rate. Per	Amount of Revenue. Due.	Amount of Revenue. Received.	Amount of Revenue. Outstanding.	Cost of Forest Department. Timber expenses under AI.	Cost of Forest Department. Quota of all other expenditure chargeable against timber, &c.	Cost of Forest Department. Total.	Comparison of Revenue and Expenditure. Surplus.	Comparison of Revenue and Expenditure. Deficit.	Remarks.
			Tons. ft. in. p.	Rs. A. P.		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.	Rs.	Rs.	Rs. A. P.	Rs.	
Salween.	Gun-carriage Factory, Bombay.	76 Padauk logs ...	65 13 9 10	125 0 0	Ton	8,160 0 0	8,160 0 0	...	6,414	188	6,602	4,060 0 0	...	
		32 Salween logs ...	22 37 5 9	110 0 0	"	2,502 0 0	2,502 0 0	...						
		Total ...	88 1 3 7	...	.....	10,662 0 0	10,662 0 0	.....	6,414	188	6,602	4,060 0 0	.....	
	Gun-carriage Factory, Madras.	40 Teak logs ...	46 35 11 6	150 0 0	Ton	7,008 0 0	7,008 0 0	.....	8,864	318	9,182	7,707 0 0	.....	
		99 Padauk logs ...	76 0 5 1	130 0 0	"	9,881 0 0	9,881 0 0	.....						
		Total ...	122 36 4 7	.....	.....	16,889 0 0	16,889 0 0	.....	8,864	318	9,182	7,707 0 0	.....	
	Jail Department, Moulmein	66 Teak logs ...	33 0 0 0	8 0 0	Each	528 0 0	528 0 0	.....	2,513	.....	2,513	1,165 0 0	.....	
		35 ditto ...	17 25 0 0	7 8 0	"	262 0 0	262 0 0	.....						
		6 ditto ...	3 30 0 0	13 0 0	"	78 0 0	78 0 0	.....						
		58 ditto ...	34 0 0 0	10 8 0	"	609 0 0	609 0 0	.....						
		25 ditto ...	10 0 0 0	5 8 0	"	138 0 0	138 0 0	.....						
		20 ditto ...	6 0 0 0	4 8 0	"	90 0 0	90 0 0	.....						
		79 ditto ...	31 30 0 0	6 8 0	"	513 0 0	513 0 0	.....						
		14 ditto ...	7 0 0 0	11 0 0	"	154 0 0	154 0 0	.....						
		109 ditto ...	13 0 0 0	2 6 0	"	259 0 0	259 0 0	.....						
		83 ditto ...	33 10 0 0	7 0 0	"	581 0 0	581 0 0	.....						
		21 ditto ...	12 30 0 0	9 0 0	"	189 0 0	189 0 0	.....						
		7 Petwun logs ...	2 37 0 0	28 0 0	Ton	77 0 0	77 0 0	.....						
		28 Padauk pieces ...	4 26 0 0	5 & 7 0 0	Each	188 0 0	188 0 0	.....						
		6 Padauk log ends	.....	2 0 0	"	12 0 0	12 0 0	.....						
		Total ...	208 38 0 0	...	...	3,678 0 0	3,678 0 0	.....	2,513	.....	2,513	1,165 0 0	.....	
	Executive Engineer, Moulmein.	7 Ingyin logs	5 2 4 1	28 0 0	Ton	141 0 0	141 0 0	.....	84	.....	84	57 0 0	.....	
		Total Salween Division.	424 28 0 3	...	.....	31,370 0 0	31,370 0 0	.....	17,875	506	18,381	12,989 0 0	.....	
South Tenasserim.	Executive Engineer, Tavoy...	Kamaung logs ...	6 48 11 10	1 4 0	Cubic feet	436 4 0	436 4 0	.....	296	.....	296	140 4 0	.....	
		33 Pyingado logs ...	..	1 8 0	Each	49 8 0	49 8 0	.....	...	.....	...	49 8 0	.....	
		Total ...	6 48 11 10	...	...	485 12 0	485 12 0	.....	296	.....	296	189 12 0	.....	
	Telegraph Department, Tavoy.	25 Thingan logs ...	...	8 0 0	Each	200 0 0	200 0 0	.....	.....	.....	...	200 0 0	...	
		40 Pyingado logs ...	...	1 8 0	"	60 0 0	60 0 0	.....	.....	.....	.....	60 0 0	.....	
		10 Kamaung logs ...	..	1 8 0	"	15 0 0	15 0 0	.....	.....	.....	...	15 0 0	...	
		Total ...	...	.....	.....	275 0 0	275 0 0	...	.....	.....	...	275 0 0	.....	
		Total South Tenasserim Division.	6 48 11 10	.....	...	760 12 0	760 12 0	....	296	...	296	464 12 0	.....	
		Total Tenasserim Circle.	431 27 0 1	.....	...	32,130 12 0	32,130 12 0	...	18,171	506	18,677	13,453 12 0	.....	
										Deduct deficit		..		
										Balance for the Depôt		13,453 12 0		

FORM No. 64.—*Statement showing the Revenue derived from, and Expenditure incurred on, Timber and other Produce sold to Public Departments from the Pegu Circle during 1884-85.*

Name of department.	Particulars of supplies.	Amount supplied.		Rate.		Amount of Revenue		Cost to Department.			Comparison of Revenue and Expenditure		Remarks.
		Number or quantity.	Cubic feet.	At	Per	Received.	Outstanding.	Timber expenses under AI and AIII.	Quota of all other expenditure charged against timber, &c.	Total.	Surplus.	Deficit.	
				Rs. A. P.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Agency Division—													
Storekeeper, Burma State Railway.	Luzars	15	1,007	.....	...	1,512	..	150	636	2,186	11,152	...	
	I dugyis	100	6,956	.....	...	11,826	...	1,400					
Commissary of Ordnance ...	Luzars	4	258	.....	...	362	...	40	20	60	302	...	
General Superintendent, Public Works Stores and Workshops, Madras.	I dugyis	78	...	.....	...	...	...	3,822	800	4,760	14,266	...	
	30 per cent. teak timber ...	46	10,013	.....	...	19,026	...	138					
Superintendent, Central Prison, Rangoon.	Luzars	5	192	.....	...	231	...	50	16	66	165	...	
	Taukyan	10	380	.....	..	144	...	50	28	78	66	...	
	Dugyis	72	15,094	.....	...	6,000	...	576	1,204	3,258	2,742	...	
	Luzars	77						770					
	Yatthits	47						376					
	Yard pieces	4						32					
	Rejected	60						300					
	Pyinma	10	462	.....	...	170	...	50	36	86	84	...	
	Drift timber	33	1,036	.....	...	366	...	264	84	348	38	...	
Executive Engineer, Akyab ...	Pyingado posts	85	...	.....	...	146	...	...	...	...	146	...	
	Total ...	646	..	... ..	...	39,803	...	8,018	2,824	10,842	28,961	...	
Rangoon Division—													
Executive Engineer, 1st and 2nd Subdivision, Burma State Railway.	Pyingado sleepers, narrow ...	250	333	65 0 0	Ton	453	...	86	74	160	2,033	...	
		1,100	1,467	60 0 0	"	1,760	...	...					
	Pyingado scantlings	200	155	50 0 0	"	155	...	79	2	81	74	...	
Executive Engineer, Tharrawaddy Division.	Do. do.	64	447	70 0 0	"	627	...	112	22	1,054	1,701	..	
Executive Engineer, Rangoon Division.	Do. do.	92	258	58 0 0	"	299	...	...					
	Do. do.	927	1,409	60 0 0	"	1,691		...					
	Do. do.	60	138	50 0 0	"	138		920					
	Do. piles	4	...	50 0 0	"	42	...	..	...	...	42	...	
	Do. slabs	20 tons	...	Actual freight	"	45	...	45	...	45	...	...	
	Do. do.	101,800 feet	...	4 0 0	100 feet	4,072	...	3,310	...	3,310	762	...	
Executive Engineer, Pegu Division.	Teak logs	111	6,031	35 0 0	Ton	4,222	...	2,528	628	3,156	3,089	...	
	Do. do.	28	2,890	35 0 0	"	2,023							
	Total ...	...	...	.....	...	15,507	...	7,080	726	7,806	7,701	...	
Prome Division—													
Executive Engineer, Prome ...	Pyingado	10	...	0 12 0	Each	7	...	...	...	...	7	...	
Executive Engineer, Thayetmyo	Do.	27	1,760	1 8 0	"	40	...	...	70	70	64	...	
	Do.	122	...	0 12 0	"	92							
	Do.	24	...	7 0 0	100	2							
	Total ...	183	...	...	...	141	...	...	70	70	71	...	

FORM No. 64.—*Statement showing the Revenue derived from, and Expenditure incurred on, Timber and other Produce sold to Public Departments from the Pegu Circle during 1884-85*—(concluded).

Name of department.	Particulars of supplies.	Amount supplied.		Rate.		Amount of revenue		Cost to Department.			Comparison of Revenue and Expenditure.		Remarks.
		Number or quantity.	Cubic feet.	At	Per	Received.	Outstanding.	Timber expenses under AI and AIII.	Quota of all other expenditure charged against timber, &c.	Total.	Surplus.	Deficit.	
				Rs. A. P.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Shwegyin Division—													
Burma State Railway ...	Pyingado sleepers	11,401	28,550	1 10 0	Sleeper	29,902	...	27,601	1,144	29,087	1,271	...	
	Ditto	7,000		...		..	...	...					
	Ditto, 2nd class ...	456		1 0 0	Sleeper	456	...	342					
Executive Engineer, Shwegyin...	Small posts	600	...	10 0 0	100	60	...	...	...	...	60	...	
	Total ...	19,457	...	...	...	30,418	...	27,943	1,144	29,087	1,331	...	
Toungoo Division—													
Executive Engineer, Public Works Department, Toungoo.	Teak logs	3	146	55 0 0	Ton	161	...	24	12	36	125	...	
	Pyinma	10	3,377	10 0 0	"	17	...	...	130	130	...	...	
	Unreserved logs	30		2 0 0	Log	60							
	Ditto	53		1 0 0	"	53							
	Ditto	6		10 0 0	100	...							
Executive Engineer, 4th Division, Burma State Railway.	Ditto	600	18,000	0 12 0	Log	450	...	...	...	.	675	...	
	Ditto	300		0 12 0	"	225							
	Total ...	1,002	...	...	...	966	...	24	142	166	800	...	
Western Division—													
Director-General of Telegraphs, Calcutta.	Pyingado	1,000	25,200	11 0 0	Each	11,000	...	6,359	3,714	10,073	927	...	
Superintendent of Jail, Bassein	Drift teak	13	390	9 0 0	"	659	...	329	16	345	314	...	
	Kanyin	25	500	8 0 0	"	231	...	152	10	162	69	...	
	Kashit	35	750	13 0 0	"	458	...	259	30	289	169	...	
Telegraphs, Bassein	Pyingado	30	600	1 0 0	"	30	...	...	...	...	30	...	
Telegraphs, Rangoon	Do.	1,000	...	0 12 0	"	750	...	...	...	...	750	..	
Executive Engineer, Henzada ...	Do.	21	630	2 0 0	"	42	...	..	.	...	42	..	
	Total ...	2,124	..	...	..	13,170	...	7,099	3,770	10,869	2,301	...	
	Total Pegu Circle ...	...	...	...	...	1,00,005	...	50,164	8,676	58,840	41,165	...	
	GRAND TOTAL BRITISH BURMA...	...	...	...	...	1,32,136	...	68,335	9,182	77,517	54,619	...	

Deduct deficit ... ..

Balance for department ... 54,619

FORM No. 65.—*Abstract showing the Value of Timber and other Produce at Sale Depôts for the Year 1884-85.*

Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.		Remarks.
	Number.	Cubic feet.	Value.	Number	Cubic feet.	Value.	In favour of the year	Against the year	
Timber.			Rs.			Rs.	Rs.	Rs.	
Logs, teak ...	2,179	18,240	7,919	233	9,833	7,421	...	498	
Drift logs, teak	1,754	63,970	17,540	1,612	52,047	12,900	...	4,640	
Logs, woods, other kinds	662	26,709	21,001	924	28,180	13,000	...	8,001	
Sleepers	3,215	10,172	11,989	15,739	23,730	25,576	13,587	...	
Scantlings ...	47	2,369	1,641	40	1,061	743	...	898	
Foreign teak	...	...	...	92,045	3,681,800	18,40,900	18,40,900	...	
Foreign woods, (other kinds)	...	...	...	59	2,360	626	626	...	
British teak (leased forests)	...	...	...	6,144	122,800	24,576	24,576	..	
British woods, other kinds (leased forests)	...	...	...	143	4,000	2,002	2,002	...	
Total Tenasserim Timber Stock ...	7,857	121,460	60,090	116,939	3,925,811	19,27,924	18,81,891	14,037	
Live stock ...	8	...	8,312	8	...	8,900	588	...	
Buildings ...	21	...	17,554	24	...	20,884	3,330	...	
Dead stock ...	...	...	18,068	...	...	19,460	1,392	...	
Total Tenasserim Live and Dead Stock ...	...	...	43,934	...	...	49,244	5,310	...	
Logs, teak ...	19,486	893,273	5,93,528	37,539	1,529,952	8,12,654	2,19,126	...	
Posts, teak .	...	...	...	92	2,300	736	736	...	
Sleepers, teak	57	85	28	2,057	3,085	3,278	3,250	...	
Scantlings, teak	9	8	8	9	8	9	...	...	
Planks, teak	...	..	..	696	...	174	174	...	
Other kinds, logs	1,627	62,284	19,644	1,282	47,937	15,384		4,260	
Other kinds, sleepers	6,132	9,198	9,965	17,186	25,779	27,927	17,962	...	
Other kinds, slabs ...	...	...	...	1,776	..	50	50	...	
Total Pegu Timber Stock ...	27,311	964,848	6,23,173	60,637	1,609,061	8,60,211	2,41,298	4,260	
Live stock ...	37*	...	46,500	40*	...	50,200	3,700	...	* Includes a calf
Buildings ...	50	...	53,688	51	...	64,700	11,012	..	
Dead stock ...	...	..	29,711	...	..	29,046	...	665	
Total Live and Dead Stock ...	...	...	1,29,899	...	...	1,43,946	14,712	665	
Total Pegu Circle ...	...	..	7,53,072	...	...	10,04,157	2,56,010	4,925	
GRAND TOTAL BRITISH BURMA ...	...	...	8,57,096	...	...	29,81,325	21,43,211	18,962	

APPENDIX A.

Statement exhibiting the Cost of Feed and Keep of Elephants of the Forest Department for the official year 1884-85 as compared with that of the Commissariat Department for the same period.

Division.	Number of elephants at commencement of the year.	Casualties during year.	Number of elephants at close of year.	Cost of feed.	Cost of keep, including gear.	Cost of medicines.	Total expenditure for the year.	Average monthly cost per animal of the Forest Department.	Average monthly cost per animal of the Commissariat Department.	Amount paid by officers for carriage elephants.	Value of labour in cash receipts and work performed.	Remarks.
				Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Salween	2	...	3	1,006 10 0	624 0 0	40 0 0	1,670 10 0			...	1,700 4 0	Calf born on 28th November 1884.
East Salween	2	...	2	3 8 0	434 13 6	15 0 0	453 5 6			130 0 0	474 0 0	
West Salween...	2	1	1	..	338 0 0	..	338 0 0	37 6 0	64 15 8	...	232 0 0	Lost; struck off the list (*vide* Chief Commissioner's No. 535, dated the 3rd June 1884.)
Atarau	2	...	2	10 0 0	668 1 0	...	678 1 0			14 0 0	184 0 0	
Total Tenasserim Circle ...	8	1	8	1,020 2 0	2,064 14 6	55 0 0	3,140 0 6	37 6 0	64 15 8	144 0 0	2,590 4 0	
Tharrawaddy	8a	...	11a	10 12 0	2,513 2 0	17 8 9	2,541 6 9			...	4,292 0 0	a Includes a calf.
Rangoon	4	...	3	..	1,197 11 0	3 15 0	1,201 10 0			..	1,109 0 0	
Prome	2	...	2	..	518 11 6	2 0 6	520 12 0			...	679 0 0	
Toungoo	7	2b	5	10 2 0	1,668 5 6	12 0 0	1,690 7 6	35 3 4	41 2 2	...	2,109 0 0	b Lost or stolen.
Agency	9	...	12	3,682 3 6	4,817 13 9	267 8 6	8,767 9 9			...	14,292 0 0	
Western	5	...	5	65 13 0	1,014 4 0	...	1,080 1 0			...	1,107 0 0	
Shwegyin	2	...	2	...	668 8 0	5 0 0	673 8 0			...	947 0 0	
Total Pegu Circle ...	37	2	40	3,768 14 6	12,396 7 9	308 0 9	16,475 7 0	35 3 4	41 2 2	...	24,535 0 0	
GRAND TOTAL BRITISH BURMA ...	45	3	48	4,789 0 6	14,463 6 3	363 0 9	19,615 7 6	...	...	144 0 0	27,125 4 0	

APPENDIX B.

British Burma.

List of Buildings of which the Cost exceeds Rs. 200 and for occupation of which no Rent is paid.

Division	No.	Name of building	Station.	Remarks
Salween ...	1	Forest office	Moulmein.	
	1	Elephant-shed ...	Do.	
	1	Paddy shed	Do.	
East Salween .	2	Bungalow	Kawkareik	
	1	Rest-house	Gyaing on the Haungtharaw.	
	1	Guard-house	Gyaing.	
	1	Bungalow ...	Papun	
Ataran ..	1	Rest-house	Natchaung	
Kado .	1	Guard-house	Martaban.	
	4	Guard-houses	Moulmein.	
	3	Offices and two out-houses	Kado.	
	1	Lascar's house	Do.	
	1	Upper guard-house ...	Do.	
	1	Lower guard-house ...	Do.	
	1	Guard-house	Nantè.	
	1	Coal-shed	Battery Point	
South Tenasserim ..	1	Office ..	Mergui.	
	1	Guard-house	Tavoy.	
		(a)—On which no rent is paid.		
Tharrawaddy .	1	Forest office	Tharrawaddy	
	1	Do. bungalow	Paungdè.	
	16	Rest-houses	Kangyi, Yôksein, Gyobingaing, Segangalé, Bawbin, Waing, We, Sèywa, Kaunglaungdaing, Kwingyi, Kywèmakaing, Thèmè, Yetho, Kyun, Myoda, Kainggwin.	
Rangoon ..	1	Forest office ..	Pegu.	
	3	Revenue stations ...	Tawlatu, Awaing, Hlegu	
	2	Rest-houses	Palôn, Kinpadi	
Prome .	2	Rest-houses	Kadinngazin, Taungale	
Shwegyin ..	1	Rest-house	Myitkyo.	
	1	Overseer's quarters ..		
	1	Bungalow	Chaungzauk	
Toungoo ..	1	Forest office	Toungoo.	
	6	Rest-houses	Tabethwè, Zibyubin, Pathichaung, Banbwebin, Minyé, Pyunchaung.	Pyunchaung rest-house destroyed by fire
Depôt and Agency .	1	Central depôt	Kemmendine, Rangoon	
	1	Overseer's quarters ...		
	6	Guard-h ses		
	1	Mahout uarters ...		
	1	Elepha shed		
	1	Seasoning-shed		
		(b)—On which rent is paid.		
Prome ..	1	Forest office	Prome.	
Tharrawaddy ...	1	First class bungalow ...	Tharrawaddy	
Shwegyin .	1	Forest officers' quarters ...	Shwegyin	Office removed to Deputy Commissioner's office
Toungoo ...	1	First class bungalow ...	Toungoo.	

APPENDIX C (1).

Statement showing the Exports of Teak Timber from Moulmein during 1884-85.

Ports.	Moulmein.		
	Logs.	Cubic tons.	Value.
			Rs.
United Kingdom	...	21,810	25,88,798
France (St. Nazaire)	...	755	98,194
Germany (Bremerhaven)	...	11	630
Malta	...	94	9,969
Egypt (Port Said)	...	2,940	3,52,911
Mauritius	...	82	6,550
Ceylon	...	1,723	1,67,637
Straits Settlements	...	81	9,298
Bengal (Calcutta)	...	22,155	20,00,687
Do. (other ports)	...	571	59,076
Bombay (Bombay)	...	28,681	21,99,155
Madras (Madras)	...	8,878	5,78,090
Do. (other ports)	...	4,892	2,65,161
Provincial ports	...	2,049	1,79,104
Pondicherry	...	1,127	63,857
Total	...	95,849	85,79,117

APPENDIX C (2)*a*.

Statement showing the Exports of Shingles, Sleepers, Railway Keys, and Woods of other kinds from Moulmein during 1884-85.

Articles.	Whither exported.		From Moulmein.		Remarks.
			Quantity.	Value.	
				Rs.	
Other timber	United Kingdom	C. tons	22	1,170	
	Malta	"	14	283	
	Bengal (Calcutta)	"	2,201	1,22,834	
	Do. (other ports)	"	142	5,939	
	Bombay (Bombay)	"	93	10,736	
	Madras (Madras)	"	95	10,301	
	Do. (other ports)	"	20	243	
	Provincial ports	"	1,161	38,631	
Teak shingles	Mauritius	No.	2,286,150	34,309	
	Siam	"	15,000	300	
	Straits Settlement	"	706,000	12,798	
	Bengal (Calcutta)	"	773,000	12,427	
	Madras (Madras)	"	60,000	1,200	
	Provincial ports	"	1,485,450	24,020	
Teak staves	Colombo	Value	...	32,053	
Ventilators, teak	United Kingdom	...	...	903	
	Germany (Bremerhaven)	...	...	60	
	Malta	...	...	120	
	Port Said	...	...	1,169	
Ventilators, other timber	United Kingdom	...	...	250	
	Malta	...	...	512	
Railway keys (teak)	Bengal (Calcutta)	Cwt.	4,091	9,224	
	Bombay (Bombay)	"	534	1,281	

APPENDIX C (3).

Statement showing the Exports of Minor Forest Produce from the Ports of Mergui, Tavoy, and Moulmein during 1884-85.

Articles.	Whither exported.	From Moulmein		From Tavoy.		From Mergui.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.		Rs.
Gums and resins, cutch...	United kingdom ... Cwt.	1,000	18,000	..	...	...	.
	Madras (other ports) ... "	1	5	...	...	...	...
Lac (stick)	Provincial ports ... "	1	24	...	...	...	...
Wood-oil	Madras (Madras) .. Galls.	180	180	...	...	...	...
	Do. (other ports) ... "	488	373	...		...	...
	Provincial ports ... "	820	1,360	...	...	11,520	3,077
Bark of trees for dyeing and tanning	Ditto ... Cwt.	...	..	3,145	508	.	.
	Ditto ... "	...	..	1,058	2,187	...	...
Ongdôn bark, cardamoms	Ditto ... lbs.	...	...	24,217	7,828	4,532	1,883
Sandal-wood	Ditto .. Viss	...		512	125	8,090	1,035
Firewood	Ditto .. Tons	...	.	4	55	..	140
Chestnuts (thitkyathi) ...	Ditto Bkts.	...	..	384	1,131	...	...
Red-wood	Ditto .. Cwt.	...	..	..	.	428	551
Aloe-wood (akyaw) ...	Ditto ... Viss	...	...	..	...	4,186	11,655
Pyu bark	Ditto ... "	...	...	...	...	104,000	789
Rattans	Ditto ... No.	...	...	...	...	4,815,500	15,221
Torches	Ditto ... "	...	...	...	...	611,475	18,700
Honey	Ditto ... Viss	...	...	...	..	3,130	1,070
Beeswax	Ditto ... "	...	...	...	...	819	820
Culamay leaves ...	Ditto ... "	...	...	...	...	800	40
Fibres	Ditto ... "	...	...	...	...	7,310	486
Canes	Ditto ... No.	...	...	...	...	2	215

APPENDIX C (4).

Statement showing the Imports of Timber and other Forest Produce during 1884-85, into the Ports of Mergui, Tavoy, and Moulmein.

Articles.	Whence imported.	Into Moulmein.		Into Tavoy.		Into Mergui.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
			Rs		Rs.		Rs.
Wood (teak)	Provincial ports ... Tons	...	...	12	638	...	..
Sandal-wood	Ditto ... Cwt.	...	...	10	65	...	...
Wood-oil	Ditto ... Galls.	...	...	1,053	242	...	...
Firewood	Ditto ... Tons	...	...	74	235	...	...
Tanning bark	Ditto ... Cwt.	...	...	49	69	...	...
Fibre, cordage, &c. ...	Ditto ... "	...	...	259	485	...	...
Dammar torches ...	Ditto ... No.	...	...	3,000	70	...	...
Rattans *	Ditto ... "	...	...	...	...	147,000	717

APPENDIX C (5).

Statement showing the Exports of Timber and other Forest Produce from the Ports of Moulmein and Rangoon during the official year 1884-85 (Private and Government).

Articles and countries to which exported.		Moulmein.		Rangoon.	
		Quantities.	Value.	Quantities.	Value.
			Rs.		Rs.
Wood—					
Teak—					
To United Kingdom	C. tons	21,810	25,88,798	11,450	13,04,151
" France, St. Nazaire	"	755	98,194	...	...
" Germany, Bremerhaven	"	11	630	...	...
" Malta	"	94	9,969	1,610	1,61,200
" Egypt, Port said	"	2,940	3,52,911	1,016	1,01,630
" Mauritius	"	62	6,550	...	...
" Ceylon	"	1,723	1,07,637	2,846	2,26,020
" Japan	"	...	...	340	34,000
" Straits Settlements	"	81	9,298	27	3,142
" Bengal, Calcutta	"	22,155	20,00,687	13,284	11,49,380
" Do., other ports	"	571	59,076	33	3,522
" Bombay, Bombay	"	28,681	21,99,155	17,747	15,24,370
" Madras, Madras	"	8,878	5,78,090	2,515	2,15,192
" Do., other ports	"	4,892	2,65,161	950	96,975
" Provincial ports	"	2,049	1,79,104	111	10,342
" Pondicherry	"	1,127	63,857	190	9,740
Total	...	95,849	85,79,117	52,128	48,39,664
Other timber—					
To United Kingdom	Tons	22	1,170	1	60
" Malta	"	14	283	...	...
" Bengal, Calcutta	"	2,201	1,22,834	100	5,064
" Do., other ports	"	148	5,939	9	511
" Bombay, Bombay	"	93	10,736	34	1,210
" Madras, Madras	"	95	10,301	3	120
" Do., other ports	"	20	248	92	5,990
" Provincial ports	"	1,161	38,631	12	587
Total	...	3,754	1,90,137	251	13,542
Manufactures of—					
Teak shingles—					
To Mauritius	No.	2,286,150	34,309	...	...
" Siam	"	15,000	300	...	...
" Straits Settlements	"	706,000	12,798	37,000	700
" Bengal, Calcutta	"	773,000	12,427	...	...
" Madras, Madras	"	60,000	1,200	.	...
" Provincial ports	"	1,485,450	24,020	48,750	1,307
Total	..	5,325,600	85,054	85,750	2,007
Teak staves—					
To Colombo	Value	...	32,053	...	...
Teak ventilators—					
To United Kingdom	Value	...	903	...	...
" Germany, Bremerhaven	"	...	60	...	...
" Malta	"	...	120	...	...
" Egypt, Port Said	"	...	1,169	...	...
Total	...	...	2,252	.	..
Junglewood ventilators—					
To United Kingdom	Value	...	250	...	..
" Malta	"	...	512	...	..
Total	...	...	762	...	...
Firewood—					
To Provincial ports	Tons	20	100	...	...
Sandalwood—					
To Bengal, Calcutta	Value	...	...	...	4,775
" Provincial ports	"	...	...	...	346
Total	...	...	...	...	5,121
Railway Plant, &c.—					
Materials for construction—					
Teak Railway keys—					
To Bengal, Calcutta	Cwt.	4,091	9,224	...	...
" Bombay, Bombay	"	534	1,281	10	50
Total	...	4,625	10,505	10	50
Junglewood sleepers—					
To Bengal, Calcutta	Tons	...	...	3,410	2,54,995
" Madras, other ports	"	...	...	309	22,475
Total	...	...	..	3,719	2,77,470
Gums and Resins—					
Cutch—					
To United Kingdom	Cwt.	1,000	18,000	123,666	13,45,105
" France, Marseilles	"	...	...	627	6,340
" Germany, Hamburg	"	...	...	1,415	16,038
" Italy, Genoa	"	...	...	800	8,000
" Egypt, Port Said	"	...	...	26,894	2,63,965
" Ceylon	"	...	...	696	10,294
" China, Hong-Kong	"	...	...	10	100
" Straits Settlements	"	...	...	12,753	1,17,147
" Bengal, Calcutta	"	...	...	93,157	9,08,951
" Do., other ports	"	...	...	101	1,485
" Bombay, Bombay	"	...	...	27,902	2,93,024
" Madras, Madras	"	...	...	2,303	29,944
" Do., other ports	"	1	5	2,540	33,163
" Provincial ports	"	...	...	1,214	13,284
Total	...	1,001	18,005	294,078	31,36,840

Statement showing the Exports of Timber and other Forest Produce from the Ports of Moulmein and Rangoon during the official year 1884-85 (Private and Government)—(concluded).

Articles and countries to which exported		Moulmein. Quantities.	Moulmein. Value.	Rangoon. Quantities.	Rangoon. Value.
			Rs.		Rs.
Lac—					
Stick—					
To Bengal, Calcutta	Cwt	...	...	224	2,771
" Madras, Madras	"	...	...	1,030	18,662
" do., other ports	"	...	...	206	3,168
" Provincial ports	"	1	24	185	4,308
Total	...	1	24	1,645	28,929
Oils—					
Wood—					
To Egypt, Port Said	Galls.	...	...	240	226
" Bengal, Calcutta	"	.	.	500	450
" Bombay, Bombay	"	...	...	124	100
" Madras, Madras	"	180	180	5,311	3,803
" do., other ports	"	488	373	224	144
" Provincial ports	"	820	1,360	..	...
Total		1,488	1,913	6,399	4,723

APPENDIX C (6).

Statement showing the Imports of Timber and other Forest Produce into the Ports of Moulmein and Rangoon during the official year 1884-85 (Private and Government).

Articles and countries from which imported.		Moulmein. Quantities.	Moulmein. Value.	Rangoon. Quantities.	Rangoon. Value.
			Rs.		Rs.
Wood—					
Teak—					
From Provincial ports	C. tons	15	805	1,060	1,75,157
Other timber—					
From United Kingdom	Tons	...	...	7	860
" Straits Settlements	"	...	...	84	4,849
" Bengal, other ports	"	...	.	66	3,496
" Provincial ports	"	177	5,684	906	33,085
Total	...	177	5,684	1,063	42,290
Firewood—					
From Siam	Tons	...	...	32	600
" Straits Settlements	"	...	...	33	462
" Provincial ports	"	25	540	69	390
Total	...	25	540	134	1,452
Sandalwood—					
From Straits Settlements	Value	..	...	..	2,275
" Bengal, Calcutta	"	...	..		745
" Bombay, Bombay	"	...	1,392	..	10,300
" Madras, Madras	"	...	30	..	8,574
" Provincial ports	"	...	410	...	1,293
Total	...	...	1,832	..	23,187
Manufactures of—					
Shingles—					
From Bengal, other ports	No.	...	..	25,000	440
" Provincial ports	"	...	..	1,580,950	26,164
Total	...	...	...	1,605,950	26,604
Railway Plant, &c.—					
Wooden sleepers—					
From Bengal, other ports	Cwt.	...	...	400	250
" Provincial ports	"	...	...	1,109	2,134
Total	..	...	...	1,509	2,384
Gums and Resins—					
Cutch and gambier—					
From Bengal, Calcutta	Cwt.	...	..	8	122
" Provincial ports	"	1,213	13,628	.	
Total	...	1,213	13,628	8	122
Lac—					
Stick—					
From Madras, other ports	Cwt.	...	...	75	1,700
" Provincial ports	"	7	115	3	54
Total	...	7	115	78	1,754
Oil—					
Wood—					
From Straits Settlements	Galls	...	..	803	1,242
" Provincial ports	"	400	230	12,336	3,522
Total	...	400	230	13,139	4,764

APPENDIX D.

TENASSERIM CIRCLE.

Statement of Teak and other Trees girdled and Forest Work done in Season 1884-85.

Name and No. of section.	By whom girdled	Name of Revising Officer.	Forest district.	Locality	Teak trees girdled.	Padauk trees girdled.	Trees counted by Revising Officer.	Pyinma trees girdled	Remarks.
1	Forest Ranger Maung Shwe Ka.	.....	Misaw forest, Lower Salween.	On the west of Misan chaung	19	...	...	...	
2				On the east of Misan chaung	62	...	...	...	
3				In the Kyaukpya forest	21	...	...	...	
4				In the forest east of the Kyaukpya and Naungkanimè path ...	25	...	...	...	
5				In the Naungkanime forest north and south of village	9	..	...	...	
6				Between the Padaingtaung and Tanatharitaung	20	...	...	...	
7				Between the Krukan and Asan chaungs	21	...	...	...	
8				On the south Kobaing chaung	7	...	...	...	
9				Near the Naungthanè village north chaung of Asan chaung ...	16	...	...	...	
10	Mr. T. A. Hauxwell ...	Mr. T. A. Hauxwell	Upper Thaungyin forests.	On the south bank of the Ônkarein stream the following tributaries—Tablocama, Mawklo, Wanthu, and Hlelaw	554	...	554	...	Inside the reserve.
11	Ditto ...	Ditto ...	Ditto ...	On the north bank of the Ônkarein stream and on its tributaries the Mawasku, Hlawkatele, and Mawlule.	300	...	300	...	Ditto.
12	Ditto ...	Ditto ...	Ditto ...	On the south bank of the Popi stream in the area allotted to Karens.	146	...	146	...	
13	Maung Tha Gyaw ...	.....	Lower Thaungyin forests.	At the sources of the Kamôn, Wanthe, and Tanya chaungs ...	300	...	...	...	
14	Ditto ...	Mr. T. A. Hauxwell.	Haungtharaw forests	On the Kyaik, Meclan, and Megathan chaungs	...	302	132	...	
15	Maung Hpo Du ...	.....	Hlaingbwè forests	Between the Hlaingbwè and Mapah chaungs	...	...	...	200	
				Between the Hlaingbwè and the south of the Mepalan chaung ...	...	...	...	200	
16	Maung Hpo Ohn ...	.....	Hlaingbwè forests	On the west bank of the Hlaingbwè in the Paigna forests	...	...	...	400	
17				In the Wimpale forest	...	...	...	200	
18				On the Dageing chaung	...	...	...	200	
19				At the sources of the Kobwè chaung	...	...	...	400	
20				On the west bank of the Dageing and on the Thanaw chaungs ...	...	...	...	400	
22	Maung Hpyu ...	.....	Haungtharaw ...	On the Megathan chaung	...	...	...	22	
26	Forest Ranger Maung Shwe Ka.	.....	Upper Dôndami-Bilakatkyi reserve.	On the east of the Bilakatkyi chaung	360	...	...	...	
27				On the west of the Bilakatkyi chaung	358	...	...	...	
28				On the east and west of the Htipado chaungs	116	...	...	...	
29				On the east and west of the Bilakatkyi chaung	64	...	...	...	
30				Between Tuthokolor and between Maung Tu's village road and east boundary of the Bilakatkyi reserve.	102	...	...	...	
				Carried over ...	2,500	302	1,132	2,022	

Statement of Teak and other Trees girdled and Forest Work done in Season 1884-85—(concluded).

Name and No. of section.	By whom girdled.	Name of Revising Officer	Forest district.	Locality.	Teak trees girdled	Padauk trees girdled	Trees counted by Revising Officer	Pyinma trees girdled	Remarks
				Brought forward ..	2,500	302	1,132	2,022	
31	Mr G H. Barnard, Assistant Conservator of Forests.	Mr. G H. Barnard, Assistant Conservator of Forests.	Pakabo reserve ...	On the north bank of Bwet chaung	10	...	.	.	
32				On the west of Bogataw chaung	55	.	...	...	
33				On the east of Bogataw chaung	135	...	..	.	
34	Ti Tu and Hti Ro, girdling writers	Mr. G H Barnard, Assistant Conservator of Forests.	Ataran forests on the Zami chaung.	Between Tiwarlè chaung and Ma-u chaung	..	13	..	...	
35				South of the Tipadaw chaung between the Shwepahut Talaya and Shwe hut and Ma-upapath.	.	38	..	..	
36				South of Shwepa hut, north of Tiwèpadan chaung	..	8	...	..	
37				In the fork of the Tiwepadan chaung	...	13	...	..	
38				In the fork of the Tiwarkalôn chaung	..	10	..	..	
39				In the fork of the Tilônkalaing chaung	...	9	...	...	
40				Between the Tilônkalaing and Naungkalauk chaung west of Kanni ...	...	32	...	...	
41				Between the Talaingkalaing and Naungkalauk chaung east of Kanni	...	7	..	...	
42				Between the Naungkalauk and Tidu chaungs	...	29	...	..	
43				Between the Tipowin and Tipotaintaw chaungs	...	13	.	..	
44				Between the Tiwarsu and Talaya chaungs	...	16	...	...	
45				Between the Talaya and Mekadi chaungs	...	27	...	..	
46				Between the Tisanpadu and Danoan chaungs	...	17	...	..	
47				North of Danoan chaung and south of Danoan village	...	14	..	...	
48				North of Danoan village	...	54	...	...	
49				Between the Tipodaw and Tikaing chaungs	...	..	...	146	
50				Between the Tipodaw and Tiwepadaw chaungs	..	...	..	43	
51				Between the Tiwepadaw and Tiwekalôn chaungs	...	..	.	51	
52				In the fork of the Tiwepadaw chaung	...	...	...	13	
53				Between the Tiwekalôn and Tilonkalaing chaungs east of Kanni ..	...	.	...	19	
54				Ditto ditto west of Kanni ..	...	..	..	37	
55				Between Tiwekalôn and Naungkalauk chaungs east of Kanni ...	...	..	...	23	
56				Ditto ditto west of Kanni ...	..	..	..	11	
57				Between the Naungkalauk and Tidu chaungs	..	...	..	20	
58				South of Kodugwè chaung north of Kanni	...	...	..	10	
59				Between Tipotanatôn and Tiwarsu chaungs	..	..	...	29	
60				On the two branches of Tiwarsu chaungs	...	.	..	98	
				GRAND TOTAL ...	2,700	602	1,132	2,522	

APPENDIX D.

Pegu Circle.

Statement of Teak and other Trees girdled and Forest Work done in Season 1884-85.

Name of range.	Name of Revising Officer.	Forest district.	Locality.	Teak.	Pyinma.	Padauk.	Kanyin.	Petwin.	Remarks.
Prome Division. Myede Range ...	Maung Kyaw Dun, Forest Ranger.	Myedè ...	On the right bank of the Bangôn stream between Eingyi and Hlandin ...	500	.	...	...	...	
			On the left bank of the Bule stream between Kwingyi and East Yoma reserve	500	...	..	...	...	
			Total ...	1,000	...	...	...	...	In unreserved forests.
Nawin Range .	Maung Pè, Forest Ranger.	North Nawin ...	On the Kyanthè stream and its tributaries	500	..	..	...	..	
		Middle Nawin ...	On the Mèzalè and Thayet streams	115	..	...	...	...	
			On the Oleswè stream	144	...	..	...	...	
			At the head waters of the Tingyi and Pazingyi streams	241	...	...	...	.	
			Total ...	1,000	..	...	...	...	In unreserved forests.
			Total Prome Division ..	2,000	...	...	...	...	
Tharrawaddy Division. Bilin Gamôn ...	Maung Me U, Ranger.	Bilin	Bilin, Minhla, Taung } Outside reserve	2,161	...	...	...	...	
		Minhla		2,459	.	...		...	
		Taung		220	...	...	...	.	
			Total ..	4,840		...	...	...	Outside reserves.
Bilin .	Mr Buchanan, Sub-Assistant Conservator.	Thônzè ...	Thônzè reserve: Compartment 23	162					
			Compartment 30	255					
			Compartment 31	72					
			Compartment 38	98					
			Compartment 39	66					
			Compartment 40	251					
				1,004	..	.	...	...	
	Mr Carter Deputy Conservator.	Môkka	Môkka Bilin reserve: Compartment 11	192					
			Compartment 13	8					
			Compartment 17	2					
				202	.	.	...	..	
			Total .	1,206	...	...	...	...	Inside reserves.
			Total Tharrawaddy Division ...	6,046	...	...	..	...	
Rangoon Division. Pegu ...	Mr J Nisbet, Deputy Conservator of Forests	Zaungti unreserved forests	Kyetlesit stream	500	.	...	...	...	Outside reserves.
			Aungmya	375	.	...	...	..	
	Not yet revised ..	South Zamayi ...	Karen area No. I	100	..	...	...	...	Inside reserves.
	Ditto .	Upper do.	Do „ I	200	...	...	...	...	
	Ditto ...	Ditto .	Do „ II	225	..	...	...	...	
Paunglin ..	Not yet revised .	Kyaukpyintha Taw .	Mahnya, Kyaukpintha, and Kyuwôngaung streams	...	500	...	...	...	
			Total Rangoon Division ...	1,400	500	..	...	...	
			Carried over ...	9,446	500	...	...	...	

Statement of Teak and other Trees girdled and Forest Work done in Season 1884-85—(concluded).

Name of range	Name of Revising Officer	Forest district.	Locality.	Teak.	Pyinma.	Padauk.	Kanyin.	Potwin.	Remarks.
			Brought over ...	9,446	500	..	...	...	
Toungoo Division.		Wayè Saing valley outside reserve.	Between Thapan Myaung and Thetkè stream ...	453	...	...	...	...	
			Between Thetkè Myaung and Mwehauk stream ...	1,182	.	...	...	...	
			Between Mwehauk and Myaungtha stream ...	388	...	...	...	...	
			Between Myaungtha and Katswè stream ...	477	...	...	...	...	
			Total ...	2,500	...	...	...	...	
		Swa valley outside reserve	Between Tinwa Myaung and Shwetanlawkyin ...	238	...	...	...	...	Some of the Swa girdling was inspected by the Conservator. The extraction of this timber will be an easy matter for the contractor and the fact should be borne in mind when the contract is made.
			Between Tinwa Myaung and Yè E Myaung ...	460	...	...	...	...	
			Between Yè E Myaung and Sagwè Myaung ...	51	...	...	...	...	
			Between Sagwè Myaung and Settainggwè stream ...	98	...	...	...	...	
			Between Panun stream and Swa stream ..	33	...	...	...	...	
			Between Panun stream and Suyu Myaung ..	63	...	...	...	...	
			Between Ngadaukgyi stream and Ngadaukgale ...	150	...	...	...	...	
			Between Wyinmu stream and Kyatgyi .	643	...	...	...	...	
			Between Wyinmu stream and West Swa stream ...	85	...	...	...	...	
			Between Wyinmu stream and East Swa stream ...	179	...	...	...	...	
			Total ...	2,000	..	...	...	...	
.....	F. W. Thellusson, Deputy Conservator of Forests.	Kabaung valley outside reserve.	Between Tagundaing Kyaw and Chaungmagnè stream ...	228	...	...	...	...	
			Between Chaunggwe Kyetsha and Chaungmange stream	14	...	...	...	...	
			Between Chaungmangè Mrauk stream Kyat Myaung ...	52	...	...	...	...	
			Source of the Pabya stream	57	...	...	...	...	
			Between Chaungmangè and Kyetsha stream ...	53	...	...	...	..	
			Between Taungthônlon and Chaungmangè Sebauk stream	119	...	...	...	...	
			North of Chaungmangè Kyaw ...	10	...	...	...	...	
			South of Taungthônlôn Kyaw ...	30	...	...	...	...	
			Between Sabanin Myaung and Kabaung stream ..	74	...	...	...	...	
			Between Mayan Myaung and Kabaung Myaung...	107	...	...	...	...	
			Above Seinyè village ..	57	...	...	...	...	
			On the Shwe Thin Myaung Kyaw ...	53	...	...	...	...	
			East of Kyaungbainggyi Kyaw ...	13	...	...	...	...	
			Between Kadin Myaung and Thabyè stream ...	48	...	...	...	...	
			On the Pain Myaung Kyaw ...	190	...	...	...	...	
			On the Myaungshegale Kyaw...	177	...	...	...	...	
			On the Sat Chaung Kyaw ...	218	...	...	...	...	
			Total ...	1.500	...	...	...	...	
		Kabaung valley outside reserve.	Between Zayit In and Gyihauk stream ...	...	70	...	...	...	
			Kyat Myaung ...	...	62	...	...	...	
			Gyihauk forest ...	...	140	...	...	...	
			Môksoma In ...	...	50	...	...	...	
			Ingyauk forest ..	...	108	...	...	...	
			Yèsikkyi forest ...	...	70	..	...	...	
			Total ...	...	500	...	...	...	
		Swa ...	On the Swa stream ...	...	500	...	...	...	
			On the Swa stream ...	...	...	275	...	...	
			On the Swa stream ...	...	...	...	...	110	
			Total ...	...	500	275	...	110	
			Total Toungoo Division ...	6,000	1,000	275	...	110	Outside reserves.
Shwegyin Division ...	Divisional Officer ...	Shwegyin	Môn forests ...	...	500	...	500	..	
			Total Shwegyin Division ...	...	500	...	500	.	
			Total Pegu Circle ...	15,446	2,000	275	500	110	
			GRAND TOTAL BRITISH BURMA ..	18,146	4,522	877	500	110	

APPENDIX E.

Statement of Outturn of Foreign Timber for the five years 1880-81 to 1884-85.

Name of forest.	1880-81.				1881-82.				1882-83.				1883-84.				1884-85.			
	Logs.	Tons.	Pieces.	Tons.	Logs.	Tons.	Pieces.	Tons.	Logs.	Tons.	Pieces.	Tons.	Logs.	Tons.	Pieces.	Tons.	Logs.	Tons.	Pieces.	Tons.
Karenni	60,996	75,397	878	745	52,235	78,352	1,069	962	58,518	77,777	3,353	2,682	78,539	89,629	4,879	2,927	96,266	82,386	7,135	3,600
Gyaingtaung ...	8,299	11,688	316	352	7,022	10,533	515	360	6,840	8,300	2,955	1,964	15,063	17,171	8,295	4,977	10,683	8,971	3,766	1,506
Mainglôngyi ...	5,772	7,237	74	59	7,455	11,182	476	380	5,668	8,502	1,316	1,053	3,816	5,350	980	688	15,949	15,105	2,660	1,454
Thaungyin	6,192	7,978	2,639	2,311	14,282	14,282	5,157	3,610	24,092	24,092	6,614	5,291	29,876	34,058	16,365	9,819	33,470	27,171	21,436	8,780
Dagwin	2,413	2,992	402	321	6,028	9,042	838	587	7,096	10,644	366	299	3,735	4,660	203	121	10,137	8,970	326	160
Total ...	83,642	105,292	4,309	3,788	87,022	123,391	8,055	5,899	102,214	129,315	14,604	11,289	131,029	150,868	30,722	18,532	166,505	142,603	35,323	15,500

APPENDIX F.

Statement showing the Exports of Timber and other Forest Produce from Moulmein during the year 1884-85.

Articles and countries to which exported.	Denomination.	Quantity	Value
			Rs.
Wood, teak—			
To United Kingdom ...	C tons	21,810	25,88,798
„ France, St Nazaire	„	755	98,194
„ Germany, Bremerhaven	„	11	630
„ Malta	„	94	9,969
„ Egypt Port Said	„	2,940	3,52,911
„ Mauritius	„	82	6,550
„ Ceylon	„	1,723	1,67,637
„ Straits Settlements	„	81	9,298
„ Bengal, Calcutta	„	22,155	20,00,687
„ Do., other ports	„	571	50,076
„ Bombay, Bombay	„	28,681	21,99,155
„ Madras, Madras	„	8,878	5,78,000
„ Do., other ports	„	4,891½	2,65,161
„ Provincial ports	„	2,049	1,79,104
„ Pondicherry	„	1,127	63,857
Total		95,848½	85,79,117
Other timber—			
To United Kingdom	Tons	22	1,170
„ Malta	„	14	283
„ Bengal, Calcutta	„	2,201	1,22,634
„ Do., other ports	„	148	5,039
„ Bombay, Bombay	„	93	10,726
„ Madras, Madras	„	95	10,801
„ Do., other ports	„	20	243
„ Provincial ports	„	1,161	38,631
Total		3,754	1,90,137
Manufactures of teak shingles—			
To Mauritius	No.	2,286,150	34,309
„ Siam	„	15,000	300
„ Straits Settlements	„	700,000	12,798
„ Bengal, Calcutta	„	773,000	12,427
„ Madras, Madras	„	60,000	1,200
„ Provincial ports	„	1,485,450	24,020
Total		5,325,600	85,054
Teak staves—			
To Colombo	Value		32,053
Teak ventilators—			
To United Kingdom	Value		903
„ Germany, Bremerhaven	„	..	60
„ Malta	„		120
„ Port Said	„	...	1,169
Total			2,252
Junglewood ventilators—			
To United Kingdom	Value		250
„ Malta	„		512
Total		...	762
Railway plant and rolling stock, materials for construction, teak railway keys—			
To Bengal, Calcutta	Cwt	4,091	9,224
„ Bombay, Bombay	„	534	1,281
Total		4,625	10,505
Gums and Resins, cutch—			
To United Kingdom	Cwt	1,000	18,000
„ Madras, other ports	„	1	5
Total		1,001	18,005
Lac, stick—			
To Provincial ports	Cwt	1	24
Oils, wood—			
To Madras, Madras	Gallons	180	180
„ Do., other ports	„	488	373
„ Provincial ports	„	820	1,360
Total		1,488	1,913
GRAND TOTAL		...	86,19,822

APPENDIX G.

Summary of Revenue of the different Divisions during 1884-85.

Budget head receipts.	Direction.	Salween division	East Salween division.	West Salween division.	Ataran division.	Kado division.	Tavoy division.	Mergui division.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P	Rs. A. P	Rs. A. P.	Rs. A. P.	Rs. A. P,	Rs. A. P.	Rs. A. P.
I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—									
a. Timber	....	19,192 0 6	1,31,073 11 6	22,784 7 0	66,115 8 3	.....	37,482 0 4	.....	2,76,647 11 7
b. Firewood and charcoal	.... .	. . .	. .	.....	...	.....	.....	.....	.....
c. Bamboos	.. .	. ...		...	.....	.....	... ..	.....	.....
d. Sandal-wood	.....	.	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	.....	.....	.....	.....	.....	.....	.....	.....
II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS—									
a. Timber	.....	4,498 8 0	6 924 3 0	796 13 6	9,492 8 0	..	7,463 6 5	3,271 0 0	32,446 6 11
b. Firewood and charcoal	.....	.....	....	.. .	33 8 0	.....	6 0 0	15 0 0	54 8 0
c. Bamboos	.....	.....	... .	.....	.....	.....	.....	.....	.....
d. Grazing and fodder grass	.....	.... .	.....	.....	.... .	.....	.....	.....	.....
e. Other minor produce	.....	.....	.... .	.....	114 0 0	. ....	1,580 8 0	.....	1,694 8 0
III.—CONFISCATED DRIFT AND WAIF WOOD	.....	. ....	.....	.....	.....	29,993 2 0	576 0 0	.....	40,469 2 0
IV.—REVENUE FROM FORESTS NOT MANAGED BY GOVERNMENT—									
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	30,964 14 0	.....	.....	30,964 14 0
b. Revenue from shared and private forests	.....	...	.....	.....	.....	.....	.....	... ..	.....
V.—MISCELLANEOUS—									
a. Fines and forfeitures	...	301 0 0	.....	.....	.....	.....	.....	.....	301 0 0
b Refunds	53 0 3	.... .	. ...	2 0 0	.....	0 8 0	35 8 6	.....	91 0 9
c. Other sources	...	268 4 0	175 0 0	53 0 0	14 0 0	16,474 2 10	.....	.....	16,984 6 10
Total Receipts ...	53 0 3	24,259 12 6	1,38,172 14 6	23,636 4 6	75,769 8 3	87,332 10 10	47,143 7 3	3,286 0 0	3,99,653 10 1

APPENDIX G.

Summary of Expenditure of the different Divisions for 1884-85.

Budget heads.	Direction.	Salween division.	East Salween division	West Salween division.	Ataran division.	Kado division.	Tavoy division.	Mergui division	Total.
A.—CONSERVANCY AND WORKS.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—									
a. Timber	.....	17,075 14 2	57,960 3 2	18,929 0 5	34,574 0 10	23 4 0	39,762 2 2	.....	1,68,324 8 9
b. Firewood and charcoal	.....	.....	.....	.....	.....	.....	.....	.....	.....
c. Bamboos	.....	.....	.....	.....	.....	.....	.....	.....	.....
d. Sandal-wood	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	.....	.....	.....	.....	.....	.....	.....	.....
II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS	.....	13 0 0	.....	.....	.....	.....	.....	.....	13 0 0
III.—CONFISCATED, DRIFT, AND WAIF WOOD	.....	3 4 0	.....	.....	.....	29,219 7 1	256 0 0	2 0 0	29,480 11 1
IV.—REVENUE FROM FORESTS NOT MANAGED BY GOVERNMENT—									
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	4,047 11 6	.....	.....	4,047 11 6
b. Revenue from shared and private forests	.....	.....	.....	.....	.....	.....	.....	.....	.....
V.—RENT OF LEASED FORESTS AND PAYMENTS TO SHAREHOLDERS IN FORESTS MANAGED BY GOVERNMENT	.....	.....	.....	.....	.....	.....	.....	.....	.....
VI.—LIVESTOCK, STORES, TOOLS AND PLANT—									
a. Purchase of cattle	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Feed and keep of cattle	.....	1,748 7 3	453 8 3	260 0 0	678 1 0	.....	.....	.....	3,140 0 6
c. Stores, tools and plant	70 0 0	439 12 7	505 15 11	364 8 8	146 10 8	2,577 5 0	49 12 0	15 5 0	4,229 5 10
VII.—COMMUNICATIONS AND BUILDINGS—									
a. Roads and bridges	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Buildings	.....	13 4 1	2,797 4 0	51 4 0	428 0 0	269 13 3	4 0 0	9 8 0	3,573 1 4
c. Other works	.....	.....	.....	.....	.....	.....	.....	.....	.....
VIII.—DEMARCATION, IMPROVEMENT, AND EXTENSION OF FORESTS—									
a. Demarcation	.....	.....	76 8 0	139 15 8	32 12 6	.....	107 9 0	.....	356 13 2
b. Compensation for land and rights	.....	.....	.....	.....	.....	.....	60 0 0	.....	60 0 0
c. Surveys and working-plans	26 0 0	2 8 0	6 0 0	.....	39 0 0	.....	.....	.....	73 8 0
d. Plantations	.....	.....	310 6 3	2,400 11 10	491 6 0	.....	.....	580 11 2	3,783 3 3
e. Protection from fire	.....	.....	1,790 13 6	1,846 10 6	739 0 0	.....	.....	.....	4,376 8 0
f. Other works	.....	.....	.....	.....	.....	.....	82 8 0	.....	82 8 0
IX.—MISCELLANEOUS—									
a. Refunds	.....	40 0 0	.....	.....	.....	.....	184 6 0	.....	224 6 0
b. Law charges	.....	.....	.....	.....	29 0 0	200 0 0	.....	.....	229 0 0
c. Other charges	323 15 0	498 7 0	21 14 0	.....	.....	32 8 0	123 13 6	.....	1,000 9 6
Total A.—Conservancy and Works	419 15 0	19,834 9 1	63,982 9 1	23,992 3 1	37,157 15 0	36,370 0 10	40,630 2 8	607 8 2	2,22,994 14 11
B.—ESTABLISHMENTS.									
I.—SALARIES—									
a. Conservators	18,000 0 0	.....	.....	.....	.....	.....	.....	.....	18,000 0 0
b. Superior officers	.....	7,931 9 9	4,041 9 9	3,001 9 9	576 2 1	2,793 5 3	7,723 13 11	.....	26,067 2 6
c. Subordinate forest and depôt establishments	.....	728 0 0	2,811 10 3	2,328 0 0	1,913 0 0	6,660 8 0	1,442 6 3	720 0 0	16,603 8 6
d. Office establishments	4,963 0 0	2,497 2 6	615 11 4	566 0 0	593 0 0	5,730 0 0	1,474 14 9	.....	16,459 12 7
e. Deputation and special allowances	.....	.....	.....	.....	.....	.....	.....	.....	.....
II.—TRAVELLING ALLOWANCES—									
a. Conservators	1,164 14 0	.....	.....	.....	.....	.....	.....	.....	1,164 14 0
b. Superior officers	.....	716 11 6	913 14 0	1,355 4 0	135 8 0	570 2 0	934 4 1	.....	4,625 11 7
c. Subordinate forest and depôt establishments	.....	112 10 8	.....	733 12 0	.....	240 0 0	23 4 0	.....	1,109 10 8
d. Office establishments	7 0 0	.....	.....	37 8 0	25 3 11	.....	10 4 0	.....	79 15 11
III.—CONTINGENCIES—									
a. Stationery	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Carriage of tents and records	.....	.....	.....	.....	.....	.....	.....	.....	.....
c. Rents, rates, and taxes	.....	44 9 0	.....	.....	.....	20 12 0	.....	.....	65 5 0
d. Pay of police guards	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Official postage	75 0 0	60 4 0	.....	.....	0 2 6	30 7 0	.....	.....	165 13 6
f. Sundries	188 5 3	247 10 0	99 6 6	72 14 6	21 10 6	68 4 0	79 1 0	.....	777 3 9
Total B.—Establishments	24,418 3 3	12,338 9 5	8,482 3 10	8,095 0 3	3,264 8 6	16,083 1 9	11,717 7 0	720 0 0	85,119 2 0
GRAND TOTAL OF EXPENDITURE	24,838 2 3	32,173 2 6	72,464 12 11	32,087 3 4	40,422 7 6	52,453 2 7	52,347 9 8	1,327 8 2	3,08,114 0 11

APPENDIX H.

Tenasserim Circle.

Number of Logs imported by the principal Thitgaungs during the year 1884-85.

No.	Names.	Number of logs.
1	Ko Taw A	28,781
2	Ko Tha Hnyin	11,229
3	Ko Mo	10,942
4	Ko Bauk	10,172
5	Myin Mo Taga	6,060
6	Maung Pan	5,983
7	Maung Shwe Po	5,726
8	Ko Lu Gale	5,705
9	Ko Pôn	4,911
10	Tsa Taga Nu	4,668
11	Ko Khine	2,971
12	Maung Bwa	2,966
13	Ma Bwiu	2,943
14	Ko Ké	2,814
15	Ko Nyike	2,802
16	Maung Nat	2,382
17	Ko Thaya	2,366
18	Ko Kye	2,294
19	Ko Shwe Lé	2,231
20	Maung Kyi	2,132
21	Ko Aung	2,050
22	Maung Po O	1,308

APPENDIX I.

Tenasserim Circle.

List showing the Names of the principal Exporters of Teak from the 1st April 1884 to 31st March 1885.

Name of firm.	Tons.	Remarks.
T. D. Findlay Bodoker and Co.	12,460	
Aga Syed Abdul Hossein and Co.	11,207	
Bombay Burma Trading Corporation, Limited	10,613	
Bullubdass	10,219	
Strang Steel and Co.	9,255	
Foucar and Co.	5,542	
Bugwandass	5,300	
Mohr Brothers and Co.	4,500	
Abdool Majeed	1,433	
Kruger and Co.	1,104	
Total	71,633	

APPENDIX J.

Tenasserim Circle.

Statement showing the Sale Prices of Timber at Home during each month of the official year 1884-85.

Month.	Sale price of timber per ton		Freight per ton.	Remarks
	From	To		
	£	£	s. s.	
April 1884	14	18		
May "	...	...		
June "	15	17		
July "	...	...		
August "	16	18		
September "	14	17	40 to 45	Sailing vessels
October "	...	...	50 to 55	Steamers.
November "	...	...		
December "	...	...		
January 1885	18	16		
February "	...	...		
March "	...	16		

t

APPENDIX K.

Statement showing the Market Rate of Teak Timber in the Indian Markets for the year 1884-85.

Month		Bombay				Calcutta			
		Squares.		Scantlings.		Squares		Scantlings, broad	
		From	To	From	To	From	To	From	To
April	1884	..	.	...	...	75	130	65	155
May	"	...	...	...	...	60	120	65	165
June	"	...	...	...	...	75	125	50	155
July	"	..	...	...	..	100	120	55	155
August	"	...	...	...	..	55	115	55	140
September	"	...	..	...	.	70	95	50	120
October	"	...	...	...	...	85	100	50	150
November	"	...	...	...	...	65	110	65	125
December	"	...	75	...	...	75	95	60	125
January	1885	...	...	...	..	55	100	65	150
February	"	...	77	..	.	60	90	35	150
March	"	...	80	...	.	60	100	50	160

APPENDIX L.

Pegu Circle.

Selling Rates in Home Market for 1884-85—Churchill and Sims.

		£ s. d.		£ s. d.	
April	1884	15 10 0	to	17 0 0	Per load.
May	"	15 10 0	to	17 0 0	
June	"	14 0 0	to	16 0 0	
July	"	11 10 0	to	16 0 0	
August	"	11 10 0	to	16 0 0	
September	"	11 10 0	to	16 0 0	
October	"	11 10 0	to	16 0 0	
November	"	11 10 0	to	16 0 0	
December	"	11 10 0	to	16 0 0	
January	1885	11 10 0	to	16 0 0	
February	"	11 10 0	to	16 0 0	
March	"	11 10 0	to	16 0 0	

APPENDIX M.

Annual Return of Junglewoods and Bamboos passed at the Government Timber Depôt and Pazundaung Revenue Station from 1st April 1884 to 31st March 1885.

Description of timber.		Logs.	Total	Remarks	Rs. A P	
Logs	In	7,711		Sold in the market at	8 5 0	per log.
	Pyinma	341		Ditto	7 4 7	
	Pyingado	1,838		Ditto	8 6 8	
	Thayet	1,066		Ditto	6 4 8	
	Kanyin	69		Ditto	30 11 1	
	Firewood	137		Ditto	0 8 2	
	Ingyin	19	11,181	Ditto	3 0 0	
Bamboos	Hmyin	474,000		Ditto	131 4 0 to 206 4 0	per 1,000
	Kyathaung	348,000		Ditto	218 12 0 to 325 0 0	
	Tin	32,800		Ditto	218 12 0 to 487 8 0	
	Talugu	6,500	861,300	Ditto	450 0 0 to 500 0 0	
Grand Total		...	872,481			

APPENDIX N.

Statement showing Progress of Taungya Plantations in the Pegu Circle during 1884-85.

Division	Reserve.	Name of village planting	Trees planted.	No. of yas.	Area in acres.	Number of plants. Total.	Number of plants. Average per acre.	Cost. Total.	Average. per acre	Remarks
								Rs A. P	Rs. A. P.	
Prome ...	Chaungzauk ...	Kadinngazin	Teak and cutch	13	58·5	28,936	494	299 4 3	4 15 1	Taxes not yet paid by Government and cost of collection of teak seed not included.
			Teak	7	24·5	11,411	465	114 0 6	4 10 5	
		Ayodaw	Teak and cutch	9	24·3	6,246	257	62 6 9	2 9 1	
			Teak	8	16·25	3,599	222	34 1 9	2 3 6	
		Ngalusan	Teak and cutch	17	83·2	46,122	552	461 2 0	5 8 2	
		Total Prome ...	...	54	206·75	96,308	465	960 15 3	4 10 3	
Tharrawaddy	Kyaukgyidaung ...	Pyancludet	Teak and cutch	37	93·10	70,547	757	762 15 6	8 3 4	
	Gwedaukkwin ..	Leppangôn	Ditto	12	49·56	36,660	740	398 1 6	8 0 7	
		Taung Kamauk	Ditto	21	61·83	56,991	921	610 6 6	9 13 9	
		Kainggwin	Ditto	35	126·00	104,676	830	1,146 11 2	9 1 7	
	Pazingyi ...	Pazingyi	Ditto	4	11·57	9,545	824	108 6 9	9 4 9	
		Total ...	.	109	342·00	278,419	814	3,026 9 5	8 13 7	
	Nyanlè	Myoda and Nyanlè	Teak	52	117·36	105,317	897	1,216 1 6	10 6 0	
	Bawbin	Bawbin	Do.	20	56·02	48,665	868	593 1 3	10 9 7	
	Kangyi	Kangyi	Do	10	24·29	13,178	542	201 4 6	8 4 10	
	Minhla Myaung ...	Aungtu tè	Do.	5	17·49	14,600	837	241 0 0	13 12 5	
		Maungan tè	Do.	2	22·83	23,900	1,047	345 0 0	15 1 11	
	Minhla Môkka ...	Seywa	Do.	13	45·90	54,650	1,190	762 14 0	16 9 11	
		Shwezin tè	Do	7	30·22	29,150	964	408 0 0	13 8 0	
		Tha-i tè	Do.	12	62·19	41,300	664	537 8 0	8 9 7	
	Mokka Bilin ...	Kyaungyua	Do	20	47·30	40,825	863	551 12 0	11 9 7	
		Panhle tè	Do	13	76·72	39,175	510	672 12 0	8 11 2	
		Shwegya tè	Do	10	63·24	54,075	855	682 12 0	10 11 2	
		Sanya tè	Do	4	23·28	15,425	662	216 4 0	9 4 9	
		Kywemakaing	Do	35	100·16	99,600	994	1,284 8 0	12 12 9	
	Kôn Bilin ...	Bolo tè . ..	Do	11	38·32	33,900	884	494 0 0	12 12 9	
	Thônze	Tude tè	Do	9	26·41	22,950	868	383 8 0	12 9 7	
		Total .	...	223	751·72	638,710	847	8,540 5 3	11 5 9	
		Total Tharrawaddy	.	332	1,093·72	915,129	837	11,566 14 8	10 1 8	
Rangoon	South Zamayi ...	Myatne tè	Teak	20	42	14,767	351	379 0 1	4 7 8	
		Pauktu . ..	Do	20	28	8,934	315			
		Palon	Do.	4	3	1,760	586			
		Total Rangoon ..	..	44	73	25,461	349	379 0 1	4 7 8	
Toungoo ...	Yanè	Zibyubin Bambôn . .	Teak	3	15	6,690	431	135 14 5	8 12 3	
	East Swa	Shweka	Do	9	29	16,410	556	269 5 7	9 2 1	
	Bôndaung	Tabetkwe	Do.	3	7	2,000	281	45 0 0	6 5 4	
	Kabaung	Maungto te	Do	1	3	2,500	833	45 0 0	17 4 6*	* High rates per acre on account of seed eaten by rats.
	Pyunchaung ..	Kyaukpato	Do.	7	.	5,375	256	222 2 0	10 9 3	
		Total Toungoo ...	..	23	54	32,975	435	717 6 0	13 4 6	
		Total Pegu Circle ..	..	453	1,427·47	10,69,873	7 38	13,624 4 0	9 8 8	

APPENDIX O.

Rules for the Constitution and Management of Cutch Reserves in the Thayetmyo District.

1. Small cutch reserves shall be constituted from time to time as village forests under section 38 of the Burma Forests Act, 1881, in the neighbourhood of villages where the conditions are favourable for the production of cutch. In determining the size of each reserve, regard shall be had to—

(i) the amount of land which can be reserved without undue interference with cultivation;

(ii) the size of the village or villages for the benefit of which the reserve is constituted;

(iii) the number of residents in these villages who now find employment, or hereafter are likely to find employment, in the manufacture of cutch.

2. From the date on which the constitution of any cutch reserve as a village forest is sanctioned by the Chief Commissioner, it shall be placed under the control of the Deputy Commissioner of the district, and shall by him be managed as hereafter provided and subject to the orders of the Commissioner, in the interests of the village community for the benefit of which it has been constituted.

3. Every person above 16 years of age, who is a *bonâ fide* resident or cultivator of land within the limits of the area included in the village or villages for which the reserve is constituted shall be considered a member of the village community.

4. The general charge of a cutch reserve shall be placed in the hands of a village committee, consisting of not less than three or more than five leading members (lugyis) of the village community for which the reserve has been constituted. The members of this committee shall be appointed by the Deputy Commissioner, and may be removed from office by him for misconduct or other sufficient cause. Subject to the directions which may from time to time be issued by the Deputy Commissioner, it will be the duty of the village committee—

(i) to attend generally to the conservation of the reserve, and especially to the production and growth of cutch trees therein;

(ii) to determine in each year what cutch trees may be felled for the purpose of manufacturing cutch or otherwise;

(iii) to arrange for the distribution of such cutch trees and of the forest produce within the reserve generally amongst the members of the village community entitled thereto;

(iv) to settle all disputes which may arise between members of the village community in respect of the reserve;

(v) to preserve the boundary marks of the reserve in good condition.

5. No right of any description shall be acquired in or over a cutch reserve constituted as a village forest, except under the following rules.

6. Subject to any rules which may from time to time be issued through the Commissioner of the Division / Deputy Commissioner, and to the general control of the village committee, every member of the village community, for the benefit of which a reserve has been constituted, shall have full right without a permit within such reserve—

(i) to pasture cattle;

(ii) to extract forest produce not being of the reserved kinds of wood or cutch for the domestic use or consumption of himself or of his household, or for the domestic use on consumption of any other member of the village community;

(iii) to burn lime or charcoal, or subject forest produce (not being cutch) to any manufacturing process when the product of such process is required in good faith for the domestic use or consumption of himself or his household or of any other member of the village community;

(iv) to enter, shoot, hunt, fish, set traps or snares, and keep, carry, or kindle fire.

7. Subject to any rules which may from time to time be issued through the Commissioner of the Division / Deputy Commissioner, and to the general control of the village committee, any member of a village community to whom a license for making cutch has been granted under Rule 8 of the forest rules, shall be allowed to cut cutch trees and manufacture cutch within the reserve which has been reserved for the benefit of the community of which he is a member.

8. Permits for the extraction and sale of forest produce in any reserve may be granted with the previous sanction of the Commissioner; but only to a member of the community for the benefit of which such reserve has been constituted.

9. Any member of a village community who without a permit sells, exchanges, or disposes of for gain any forest produce of a reserve or product obtained by subjecting forest produce of the reserve to a manufacturing process, shall be punished with imprisonment, which may extend to three months, or with fine, which may extend to Rs. 500 or with both, and shall be moreover liable to be deprived by the Deputy Commissioner permanently, or for a time, of any rights which he may have under these rules.

10. Any person who (*a*) sets fire to a cutch reserve, or who (*b*) clears, cuts taungya or breaks up for cultivation or any other purpose, or who (*c*) in any way appropriates to his exclusive possession any land in a cutch reserve which has been constituted a village forest, shall be punished with imprisonment, which may extend to three months, or with fine which may extend to Rs. 500, or with both, in addition to such compensation for damage done to the reserve as the convicting Court may direct to be paid.

11. Any person, not being a member of the village community for the benefit of which a cutch reserve has been constituted a village forest, who—

(*a*) trespasses;
(*b*) pastures cattle or permits cattle to trespass;
(*c*) strips off the bark or leaves from, or otherwise damages, any tree;
(*d*) hunts, shoots, fishes, poisons water, or sets traps and snares, in such cutch reserve,

shall be punished with fine, which may extend to Rs. 50.

12. Any person, not being a member of the village community for the benefit of which a cutch reserve has been constituted a village forest, who—

(*a*) kindles, keeps, or carries any fire;
(*b*) fells, girdles, lops, taps or burns any tree;
(*c*) quarries stone, burns lime or charcoal, or collects objects for any manufacturing process, or removes any forest produce in such reserve,

shall be punished with imprisonment for a term which may extend to six months, and with fine, which may extend to Rs. 500, or with both, in addition to such compensation for damage done to the reserve as the convicting Court may direct to be paid.

13. The Commissioner, Deputy Commissioner, Subdivisional Officer, Township Officer, Thugyi, and each member of a village committee shall be deemed to be Forest Officers for the purpose of these rules.

14. It shall be the duty of the thugyi and every member of a village committee as a Forest Officer to report, through the Township Officer, to the Deputy Commissioner any infringement of these rules which may come to his notice.

15. The thugyi of every circle in which a village cutch reserve or part of a village cutch reserve is contained shall be furnished with a plan of such reserve. Any person shall be allowed to inspect such plan free of cost.

16. The thugyi of every circle in which a village cutch reserve, or part of a village cutch reserve, is situated, shall inspect each reserve in his circle once a year and shall, not later than the 10th April, report the result of his inspection, through the Township Officer, to the Deputy Commissioner. In such report the condition of all boundary marks shall be specially noted as well as any points of interest in regard to the conservation of the reserve, and how far it is fulfilling, and is likely to continue to fulfil, the purposes for which it was constituted a village forest.

17. Any person feeling aggrieved by any order connected with the village cutch reserve may appeal to the Commissioner, when the order appealed against is that of a Deputy Commissioner, or to the Deputy Commissioner, when the order is that of any officer other than the Deputy Commissioner. The order passed on appeal by the Commissioner or Deputy Commissioner, as the case may shall be final.

18. The Deputy Commissioner may by special order, with the previous sanction of the Commissioner to be notified in the *British Burma Gazette*, close to use for any period not exceeding five years the whole or any portion of a village forest.

APPENDIX P.

Pegu Circle.

Average of Sales at Rangoon Central Depôt, 1884-85.

Month		*Per ton* Rs	A	P
April	1884	46	1	10
May	"	31	5	10
June	"	47	2	8
July	"	37	11	11
August	"	34	3	11
September	"	34	2	7
October	"	26	8	6
November	"	30	14	8
December	"	38	9	8
January	1885	29	7	2
February	"	33	4	0
March	"	29	1	7

REPORT

ON

THE FOREST ADMINISTRATION

IN

LOWER BURMA

FOR

THE YEAR 1885-86.

RANGOON:
PRINTED AT THE GOVERNMENT PRESS.

1886.

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RESOLUTION

ON THE

FOREST ADMINISTRATION REPORT

OF

LOWER BURMA

For the year 1885-86.

Extract from the Proceedings of the Chief Commissioner, Burma, in the Forest Department,—No. 21M., dated the 3rd September 1886.

READ—

Reports of Conservators on the administration of the forests in the Tenasserim and Pegu circles for the year 1885-86.

RESOLUTION.—The report for the Tenasserim circle was submitted on the 29th June and that for the Pegu circle on the 1st July. It is satisfactory that it has been found practicable to compress the report for the Pegu circle into 20 pages, or precisely one-half the size of the report for the year before, and that of the Tenasserim circle into 19 pages compared with 31 in that year. The Tenasserim report is still unnecessarily detailed.

Results of the year's work.

2. The general results of the work done by the Department during the year may be summarized as follows. The area of reserved forests was increased by 530 square miles as against 183 square miles in 1884-85. Fire-protection was successful over 152,328 acres against 176,268 acres in that year. The Karen cultivators planted 1,907 acres of taungya ground with teak, bringing up the total area of these plantations to 9,143 acres. The number of teak trees girdled was 17,874, and of other kinds 550, as against 18,146 and 6,009 respectively in 1884-85. The quantity of teak extracted during the year was 35,443 tons, or 12,565 tons less than in 1884-85. The gross revenue of the year was Rs. 19,73,859, and the gross expenditure was Rs. 11,50,953, leaving a net revenue of Rs. 8,22,906 against Rs. 4,58,748 in 1884-85.

RESERVATION OF FORESTS.

3. The area added to the reserved forests of the Pegu circle during the year was 90 square miles only. From this have to be deducted 16 square miles of the Thayetmyo East Yoma reserve bordering on the old frontier line, which were thrown open in order to encourage settlers from Upper Burma. In Tenasserim the Kaleinaung reserve, of 460 square miles, in the Tavoy district, was sanctioned

during the year. On the 31st March 1886 the area of the reserves in the Pegu circle was 3,295 square miles and in Tenasserim 1,176 square miles, or a total area, after rectification of previous figures, of 4,471 square miles, of which 422 square miles are subject to Karen *taungya* privileges. Measures for the reservation of further large areas in both circles are in progress and will, it is hoped, be completed within the current year.

Forest surveys.

4. The operations of the Topographical Survey party under Mr. Horst, which were being carried on in the Tharrawaddy and Prome districts, had to be abruptly abandoned in the middle of April, when the locality was overrun by dacoits, who cruelly murdered four members of the survey establishment. The work done is described in detail in paragraph 18 of the Pegu report. The area actually surveyed was 131 square miles on the 2-inch scale and 199 miles on the 4-inch scale, besides other subsidiary work. The cost of the work is estimated at Rs. 1,14,702, or Rs. 347½ a mile—Rs. 49½ a mile in excess of the cost in 1884-85. It is intended to keep Mr. Horst's party at work in the lower province next season also, instead of transferring it to Upper Burma, which is still in too unsettled a state to admit of survey work being attempted. Thereafter it is hoped that a party from the Forest Survey branch may begin work in Lower Burma.

Working Plans.

Working plans.

5. The working plans of the Kôn Bilin, Kadin Bilin, and Môkka Bilin reserves were completed during the year and, at the suggestion of the Inspector-General of Forests, have been carefully considered by a Committee consisting of the acting Conservator, Pegu Circle, and the officers in charge of the Rangoon, Tharrawaddy, and Prome divisions. The report of the Committee was forwarded to the Inspector-General on the 2nd August. Owing to the unsettled state of the country and the want of maps, the Working Plans division did no field work during the past season.

Offences against Forest Rules.

6. Offences against forest rules in the Tenasserim circle rose from 79 in the previous year to 113, in all of which, except 12, convictions were obtained. In Pegu the number was 22 cases in excess of the number in the year before. The extra protective staff on the Salween river sanctioned in 1884 has been of service, but it is not considered that so large an additional establishment is now needed, and orders have been issued for its reduction, by which a saving of Rs. 182 a month will be secured.

Protection of Reserves.

Forest fires and fire-protection.

7. As might have been expected, much damage has been done to the forests in the Pegu circle during the past dry season by dacoits. Out of 111,929 acres the protection of which was attempted, only 77,414 acres were saved from fire at a cost of Rs. 9,654 against 102,638 acres protected in the year before at a cost of Rs. 10,459. The mischief, which was generally wilful, was done mainly in Prome and Tharrawaddy divisions. It has been very serious in the latter, where there are so many reserves. No correct estimate of the actual damage caused can be formed until after the rains. Singularly enough not one fire occurred in the Toungoo division, although many

bad characters were about during the latter part of the season. The Chief Commissioner notices with pleasure the valuable help given by the Karens in Tharrawaddy in putting out fires. Their services seem to deserve special recognition, as do also those of the Shan villagers referred to in paragraph 29 of the Report. In Tenasserim circle very little damage was done. Out of 77,292 acres, 74,944 were protected at a cost of Rs. 4,723. The occurrence of so many fires in the West Mèpalè reserve points to carelessness on the part of the watchers and patrols, a party of whom were directly responsible for the most serious of the fires.

8. The attention of District and Forest Officers has been specially directed to the remarks in paragraph 6 of the Government of India's review of the Burma Forest Report for 1884-85 in regard to jungle fires and the best means of controlling them. The enforcement of Rule 4 of the Rules under the Burma Forest Act has been enjoined, as also the bestowal of small rewards on villagers living near reserves who assist in preventing fires and in detecting people who cause them.

Reproduction and Improvement of Forest Growth.

9. In Tenasserim no regular plantation work was done during the year, there being no officer available to supervise it. The Magayi and Kyetpyugan teak plantations in the Rangoon division were enlarged by 21 and 32 acres respectively, at a cost of about Rs. 12 an acre, and the plants are said to be thriving.

Teak cultivation in taungyas.

10. Satisfactory progress continues to be made with the cultivation of teak in taungyas, and the results are in some places specially good. In Tenasserim 464 acres of taungya grounds were planted up with teak by the Karens, three-fourths of the area being fully stocked with plants. In the Pegu circle the taungya area planted was 1,705 acres, at an average cost per acre of Rs. 10-2-3. In parts of the Prome and Tharrawaddy divisions some 260 acres were planted with teak and cutch in about equal proportions.

Girdling Operations.

11. In the Tenasserim circle 1,930 teak trees inside, and 368 trees outside, reserves were girdled during the year, besides 250 padauk trees. In the Pegu circle it was intended that 15,700 teak trees should be girdled, or exactly the same number as was proposed for girdling in the year before. The actual number girdled was 15,576. Besides these, 300 pyinma trees were also girdled.

Revenue and Expenditure.

12. The gross forest revenue of the year was Rs. 19,73,859, or Rs. 3,02,878 more than in 1884-85. It was made up as follows :—

		1884-85.	1885-86.	Increase or decrease.
		Rs.	Rs.	Rs.
From timber and other produce removed from the forests by Government agency		12,56,766	16,03,781	+3,47,015
From timber and other produce removed from the forests by consumers or purchasers.	Timber	1,85,800	1,19,856	- 65,944
	Firewood and charcoal...	1,404	829	- 575
	Bamboos	4,351	3,685	- 666
	Grazing and fodder grass	225	253	+ 28
	Other minor produce ...	87,042	70,350	- 16,692
Confiscated, drift and waif wood		79,483	1,15,431	+ 35,948
Duty on foreign timber and other foreign produce...		30,965	25,106	- 5,859
Miscellaneous		24,945	34,586	+ 9,623
	Total ...	16,70,981	19,73,859	+3,02,878

In Tenasserim the actual receipts from sales of Government timber were 1⅓ lakh below the estimate. This was due to several causes,—the fall in the price of teak in Moulmein; the detention on the way down the Thaungyin of some 9,000 logs through a block in the river; the late arrival of about 3,600 logs from the Salween and Ataran forests, the result in the case of the former of the disturbances by dacoits in the Salween district; and the non-payment within the year of a considerable sum due by another Government department. In Pegu the sales of Government timber at the Rangoon depôt were in excess of those of the previous year by 10,420 logs, the greater portion of which was sold for shipment to India and Europe. This accounts for the satisfactory financial results of the year under budget head No. I*a*. The great falling off in receipts from timber taken direct from the forests by consumers is due to the panic caused by the disturbances which took place towards the close of the year.

13. The charges of the year, compared with those of 1884-85, were—

	1884-85.	1885-86.
	Rs.	Rs.
(A) Conservancy and works	9,39,729	8,75,004
(B) Establishment	2,72,504	2,75,949
Total ...	12,12,233	11,50,953

There were large savings in expenditure owing to the non-arrival of so much timber on the Tenasserim side, as explained above, and through the neaping of several thousands of logs in different divisions of the Pegu circle.

14. The net revenue of 1885-86 was Rs. 8,22,906 as against an expected surplus of Rs. 8,00,000, a result which may be considered satisfactory in view of the many adverse influences at work throughout the year.

Timber worked out of the Forests.

Timber worked out of the forests.

15. The quantities of timber of all kinds removed from the forests within our territory during the year were as follows:—

	Teak.	Other kinds.	Total.
	Tons.	Tons.	Tons.
By Government agency	82,073	4,341	86,414
By purchasers and under trade permits	331	41,584	41,915
Under free permits	437	866	1,303
By lessees of forests	2,602	381	2,983
Total ...	85,443	47,172	82,615
Outturn of 1884-85 ...	48,008	84,782	132,790
Decrease in 1885-86 ...	12,565	37,610	50,175

A better outturn of teak worked out by Government would have been shown but for the causes alluded to in paragraphs 12 and 13 above. A profitable business was done in pyingado logs, which were supplied in the form of sleepers to the Bengal and Madras State Railways. Teak was so cheap that the quantity of timber of other kinds removed by purchasers and permanent holders was little more than one-half the quantity extracted in the year before.

Imports and Exports of Teak.

Imports of teak from beyond the frontier.

16. Compared with the statistics of 1884-85 the quantity of teak imported into Tenasserim from forests beyond our borders in 1885-86 was 117,099 tons, or 41,004 tons less, and into Pegu 73,346 tons, or 7,647 tons less than in the former year. The depressed state of the market and consequent unwillingness of money-lenders to make advances to foresters, and the Upper Burma Expedition and subsequent disturbances were, no doubt, the chief causes of the decline.

Exports of teak.

17. The quantity of teak exported from Rangoon and Moulmein was about 20,000 tons in excess of the exports of the previous year. The figures are—

	From Moulmein.		From Rangoon.		Total.		
	Tons.	Value.	Tons.	Value.	Tons.	Value.	Average value per ton.
		Rs.		Rs.		Rs.	Rs.
1884-85 ...	95,849	85,79,117	52,128	48,39,664	147,977	1,34,18,781	90·7
1885-86 ...	105,240	83,09,160	63,368	53,72,330	168,608	1,36,81,490	81·1

The destinations of the exports of 1885-86 were Bengal 28,293 tons, Bombay 66,789 tons, Madras 23,275 tons, other Indian ports 2,516 tons, and Europe 46,378 tons. The balance, 1,357 tons, went to ports within the province.

Forest Act and Rules.

Forest Act and rules.

18. With the view of making the forest rules more generally intelligible to the people, a note explanatory of both the Act and rules was prepared during the year by Mr. Popert and widely distributed, in both English and Burmese, throughout the province. No changes were made in the Act and none of importance in the rules.

19. The general results of the year's work are creditable to Colonel Seaton and Mr. Popert, who were in charge of the Tenasserim and Pegu circles respectively throughout the year, and to the officers who served under them.

By order of the Chief Commissioner,

E. S. SYMES,

Secretary.

REPORT

ON

FOREST ADMINISTRATION

IN

THE TENASSERIM CIRCLE

For the year 1885-86,

BY

Colonel W. J. SEATON, Conservator of Forests.

CHAPTER I.

AREA AND BOUNDARIES.

1.—Area.

Increase in area of State reserves.

DURING the year the local Government sanctioned the reservation of the proposed Kaleinaung reserve of 460 square miles at the sources of the Tavoy river, thereby increasing the area of State reserves from 716 to 1,176 square miles.

Areas proposed for reservation.

2. Proposals were submitted during the year for the reservation of an area of about 300 square miles on the Ngawun branch of the Little Tenasserim river, in the Mergui district.

In the case of the proposed Martaban reserve an inquiry was held by the Deputy Commissioner, Amherst district, as Forest Settlement Officer, but consequent on the disturbed state of the district later on precluding an examination of the reserve in the cold season, no definite action was taken on the proposals within the year.

The Deputy Commissioner was also nominated Forest Settlement Officer in the case of the proposed Ye reserve, but was not in a position to visit the reserve till after the close of the year.

2.—Boundaries.

Demarcation of boundaries.

3. The boundaries of the Kaleinaung reserve, Tavoy district, were finally demarcated at a cost of Rs. 187-1-0, or Rs. 2-7-10 per mile of boundaries actually demarcated.

For boundary marks zinc sheets, 12 inches × 4 inches, painted white and with the serial number punched out, were affixed to trees along the boundaries.

Altogether 180 zinc sheets valued at Rs. 105-2-0, and 190 large nails at Rs. 3-7-0, were expended, and in addition Rs. 78-8-0 were spent on cooly-hire and guide-hire.

Inspection of reserves and renewal of boundary marks.

4. The boundaries of all the reserves in the East Salween division were inspected in part by the Divisional Officer, but the disturbed state of the country precluded an examination of the boundaries of the more northern reserves in the West Salween division. In the Ataran division the boundaries of four reserves were inspected by the Subdivisional Officer, Mr. Barnard, and 102 boundary marks renewed at a cost of Rs. 11-14-0.

In the Mintha reserve, South Tenasserim division, no renewal of boundary marks was found to be needed.

CHAPTER II.

Surveys, Working Plans, and Annual Plans of Operations.

Examination and survey of padauk tracts and teak tracts.

5. The examination of the padauk-producing tracts in the Upper Haungtharaw valley was continued by the Conservator and resulted in the selection of five separate areas as suitable for reservation.

Portions of the Misanchaung, Kyunmagu, and Pandaw forests, in the Salween division, were also surveyed and a large tract in the former selected for reservation.

A survey of the outlying teak tracts in the Ataran valley was also commenced, but it was only possible within the year to complete the examination of the tracts on the Zami branch of the Ataran river.

CHAPTER III.

Protection and Improvement.

General Remarks.

Forest legislation.

6. No alterations were made in the forest rules during the year under review.

Some minor amendments were proposed, but final action was not taken in the matter till after the close of the year.

Undoubtedly year by year some defects will come to light in the working of the rules, but at the same time it may be said that the value of the present rules and Forest Act of 1881 as a whole is being more and more recognized.

Among the forest population there is yet much ignorance manifested on the subject of the forest rules, the natural outcome of so large a proportion of the population being composed of Karens, who are generally illiterate.

1.—Establishments.

Permanent establishment.

7. During the year no alteration was made in the strength of the permanent establishment. The total cost was Rs. 15,565.

Temporary establishment.

8. The large additional temporary establishment sanctioned during the previous year continued to be entertained for the better protection of timber adrift and in transit on the Salween river.

The extra expenditure thus incurred amounted to Rs. 7,173-15-0, which was fully met by the half per cent. *ad valorem* duty levied on foreign timber.

The amount expended upon ordinary temporary establishments was Rs. 5,773-6-4, making a total expenditure on temporary establishment of Rs. 12,947-5-4 during the year.

Forest apprentices.

9. Forest apprentice Shwe Ka, who returned from the Forest School, Dehra Dun, in January 1885, was transferred from the temporary to the permanent establishment on the 15th August 1885 as Forest Ranger, V grade, and posted to the West Salween division.

2.—General Protection and Breaches of the Forest Law.

General remarks.

10. Consequent on the additional protective establishment entertained for the Salween river, and the enforcement of the restrictions lately introduced against bank salving above the Kamawlè station, the year under review exhibits an increase of 57 per cent. in the number of cases dealt with involving breaches of the forest rules relating to timber in transit on the Salween.

Compared with the figures of the previous year, the number of real forest cases dealt with relating to breaches of rules both in State reserves and unreserved forests exhibit only a slight increase.

11. There were four cases of breaches of forest rules of this class, two of which took place in the West Mèpalè reserve, East Salween division, and were compounded.

Breaches of forest rules within reserved forests.

In one, in which Karens were detected hunting within the reserve, a sum of Rs. 30 was paid, while in the other case, involving a similar offence, 16 baskets of teak seed were collected and made over as compensation.

The third case was of a more serious nature, involving the girdling of 48 I class teak trees in the Gwôngyi reserve, Ataran division, by the agent of the lessee of the adjacent tract No. 35.

It was, however, proved that the agent had acted in ignorance as to the boundaries of No. 35 tract, the lessee having noted the boundaries incorrectly in his orders, and as the latter died and the girdled trees were all above 7½ feet in girth, the local Government decided that no action could be taken.

The fourth case was one of unauthorized fishing by five men within the Kaleinaung reserve, South Tenasserim division, and resulted on trial in the acquittal of all the parties.

12. The majority of cases in unreserved forest areas were in connection with the rules relating to the protection of timber on the Salween river. Mr. Weston, the officer in charge Salween division, in his capacity of Sub-Magistrate, 3rd class, disposed of in all 83 cases, of which 77 were of the above nature.

Breaches of forest rules in unreserved forests.

The majority of these cases involved breach of amended Rule 34, which prohibits salving above Kamawlè on the Salween.

Out of these 83 cases tried, there were two cases in which seven persons were acquitted, and in 81 cases 145 persons were convicted in which Rs. 1,396 were levied as fines, 40 persons punished with imprisonment, and 14 boat-hulls, 48 logs, and five pieces teak, 14 pyingado posts, and 23 padauk pieces were confiscated.

Three cases were disposed of in the Assistant Magistrate's Court, Moulmein, and resulted in one case in two individuals named Tun Lagyi and Nga Kyi being sentenced for personating a Forest Officer respectively, the one to one year and Rs. 100 fine, or in default six months' additional imprisonment, the other to nine months' imprisonment and Rs. 100 fine, or in default to six months' further imprisonment.

In another case San Dun, Po Mya, and Ba O were convicted of being in possession of stolen timber and sentenced to two years' rigorous imprisonment.

In the third case Hansoo a Chinaman, long suspected of being the head centre of a large timber-thieving organization, and one Lu Nyo were found guilty under section 411, Indian Penal Code, and sentenced respectively, the first to two years' rigorous imprisonment and Rs. 500 fine, or in default to six months' additional imprisonment, and the latter to 15 months' rigorous imprisonment.

In these cases Rs. 500 were paid as legal expenses and Rs. 336-8-0 for rewards to informers, boat-hire, &c., or Rs. 836-8-0 in all, which was more than covered by the value of the stolen timber recovered.

In the South Tenasserim division, out of 13 cases of unlawful felling of timber in the Tavoy district implicating 13 persons, convictions were obtained in seven cases, the several defendants being punished by fines varying from Rs. 5 to Rs. 36.

Convictions were also obtained in three out of four cases of extracting wood-oil without a license, and resulted in the defendants, eight in number, being sentenced to small fines. The Divisional Officer compounded six minor cases of breaches of Rule 8.

In the Mergui district, out of three similar cases of breaches of Rules 5 and 8 submitted for trial, two resulted in the conviction and punishment of the two defendants.

Only one case was discovered in the East Salween division and compounded by the Divisional Officer on payment of a sum of Rs. 55 for 55 teak saplings felled in a taungya.

The case of breach of Rule 4, section (*a*), which was pending at the close of the previous year, was compounded by the Karens agreeing to cut and plant certain taungyas within the West Mèpalè reserve with teak and collect the seed themselves for the same.

No cases were discovered in the West Salween division, but the Forest Ranger reported the Karens of eight hamlets between the Dagwin and Kyaukhnyat stockades on the Salween as having cut their taungyas in what at one time was teak forest and having lopped the boughs of numerous teak trees standing in their yas.

As these localities have for many years past been converted into taungya grounds and denuded of all valuable trees, it does not seem politic to do more than issue a caution against the practice of lopping in the face of the fact that the more valuable localities have now been demarcated and the area available for taungya-cultivation considerably curtailed thereby.

A case of a trade license-holder felling under-sized thingan trees, which was pending at the close of the year, was compounded on payment of a sum of Rs. 50 on six thingan trees under five cubits girth.

In the Ataran division there were three cases of prosecution in the Myoôk's Court, Mudôn, for breaches of Rules 5 and 8 of the Forest Rules, and section 403, Indian Penal Code, which resulted in three persons being fined respectively Rs. 3, Rs. 3, and Rs. 15.

One case of breach of Rule 5 was tried in the Amherst Myoôk's Court and the defendant fined Rs. 20.

Two cases of breaches of Rule 5 and 8, dealt with in the Yè Myoôk's Court, resulted in acquittal in the one case and infliction of a fine of Rs. 10 in the other.

Two cases of breach of Rule 5 were compounded by the Divisional Officer on payment of Rs. 20 in each case.

Breaches of forest rules within leased forests.

13. The case of girdling of under-sized teak trees on the part of the employés of leased Ataran Forest No. 53, noted in paragraph 17 of the Administration Report for 1884-85, was dismissed by the local Government, it being shown that the lessee, Mr. Darwood, had already sustained a heavy loss by the illegal acts of his employés, which reduced the stock of I class trees available for future removal by 35 trees valued at Rs. 1,050, these trees being below the standard size fixed in the lease.

3.—*Forest Fires.*

Forest fires within unprotected reserved forests.

14. From the reports received from the West Salween and South Tenasserim divisions it appears that the following areas, occupied largely by evergreen and moist forest, have escaped the fires during the past dry season :—

			Sq. miles.
Kahilu reserve (unprotected portion of reserve)	...	...	18
Mintha reserve of a total area of 100 square miles	...	...	100
Total		...	118

In addition to these areas some also in the East Mèpalè reserve, in the East Salween division, must have escaped the fires, but no report has been received regarding them up to date.

Doubtless small portions of other reserves, from various causes, escaped the fires, but as these same portions are very liable to be burnt in other years, the collection of information regarding them would serve no purpose.

Fire-protective measures.

15. Fire-protective measures were on the whole very successful during the past dry season, which was by no means favourable for such work, the season being characterized by a total absence of early showers in April and by great heat, while during the early part, in January and February, some of the reserves were visited by dacoits and the country in their vicinity was in a generally disturbed state.

Decrease in area attempted to be protected.

16. The area attempted to be protected was 4,136 acres less than during the previous year, it having been resolved not to continue the protection of the southern half of the Dôndami-Bilakatkyi reserve with the aid of the adjacent villagers, but to suspend all such efforts until, in the first place, permanent fire-traces could be made which could be depended upon against the spread of fires from the large belts of kaing grass on the south-east.

The area thus excluded after allowing for a small increase in the case of the Ataran division explains the decrease as compared with the previous year's work.

Results compared with those of previous year.

17. Out of a total area of 77,292 acres attempted to be protected 74,944 acres (or 97 per cent. of the whole) were successfully protected.

This compares favourably with the figures of the previous year, being 96 per cent. as successfully protected against 90·4 per cent. in 1884-85.

Comparison is also favourable as regards the number of fires which broke out in or entered the reserves and the expenditure incurred, the number being only six as compared with 18 during the previous year, and the expenditure only 1·008 annas per acre against 1·066 annas of the previous year.

Failures in fire-protection.

18. The failures in fire-protection resulting from six fires were limited to the West Mèpalè reserve in the East Salween division, and Dali reserve, Ataran division, and aggregated 2,330 acres in the former and 18 acres in the latter, or a total of 2,348 acres.

In all the other reserves, namely, eight in the West Salween division and two in the Ataran division, no fires occurred.

Of the six fires which broke out five were in the West Mèpalè reserve.

The first of these, on the 4th April, was accidently caused by some taungya-cultivators and spread over only 11 acres.

The second fire, which only extended over 15 acres, on the 5th April, was occasioned by a burning tree falling across the north fire-trace from a steep slope which it skirted.

The third and somewhat serious fire on the 6th April was caused by the wind carrying sparks from certain yas in course of being fired to the flank of a hill near the Tidogwè chaung.

As grass was somewhat abundant on the slope it was dangerous to approach the fire, and it was only suppressed by a counter-fire when an area of 300 acres in all had been burnt.

The fourth fire, on the 15th April, extended over only four acres, when it was suppressed by the patrols. It broke out in an old abandoned taungya of 1882, but its origin could not be ascertained.

The fifth and most serious fire occurred on the 21st April, and was caused by a party of patrols burning the outer part of the south-west fire-trace contrary to orders, when neither the forest ranger nor forester was present. The wind carried some sparks across the fire-trace, and the forest being exceedingly dry and grassy the fire spread rapidly, and was only suppressed by counter-fires after it had extended over an area of about 2,000 acres, over the entire southern portion of the reserve below the Mowasku chaung. It was, however, successfully excluded from the plantations.

The fire in the Dali reserve, Ataran division, occurred as early as the 22nd February, when the *débris* on the fire-trace near the forest guards' village on the Kayin chaung had not yet been burnt.

A high wind prevailed at the time, rendering the efforts of the villagers almost useless.

The fire swept rapidly through the village, destroying two of the houses, and was not suppressed before it had overrun 18 acres of the plantations, namely, eight acres of 1881, six acres of 1884, and four acres of 1878.

Expenditure.

19. The total expenditure incurred was Rs. 4,723, or 1·008 annas per acre.

As compared with that of the previous year the expenditure in the Sinzwè reserve, West Salween division, exhibits a decrease of Rs. 686. This is due to the facts that the preparation of the fire-traces was commenced a month later and the Kamu cooly establishment reduced by men being transferred for work to other reserves.

In addition to this the expenditure of the previous year was unduly swelled by a gang of new coolies having been obtained towards the close of the year, some weeks previous to the expiry of the time for which the former gang was under agreement to serve.

Consequent on more Kamu coolies being employed in the Kahilu and Ônkangyi reserves, to insure better results, the expenditure on them was somewhat higher.

In the East Salween division the expenditure on the West Mèpalè reserve shows an increase of Rs. 339, owing to the work on the fire-traces commencing a month earlier than during the previous year and, as afterwards proved, earlier than was actually necessary.

4.—Grazing.

Grazing within reserves.

20. No grazing rights are exercised within any of the reserves and no revenue was realized as grazing dues.

As noted in the previous year's Administration Report, paragraph 23, a certain number of elephants are allowed to graze within the Mekkanè reserve, East Salween division, but this concession to some of the adjacent villages is only a temporary privilege to be granted at the discretion of the Civil Officer and Conservator.

5.—Natural Reproduction.

No direct measures undertaken.

21. No direct measures were undertaken to stimulate or assist natural reproduction in the reserves.

Work of this description requires careful direction and supervision, and there are no officers available to whom such duties could be assigned.

6.—Artificial Reproduction.

Taungya teak plantations.

22. The area brought under cultivation is 201 acres in excess of the area planted during the previous year. The results were as follows:—

	Well stocked. Acres.	Indifferently stocked. Acres.
West Salween division	250	102
East Salween division	58	5
Ataran division	29	25
Total ...	332	132

which give a total of 464 acres of which 28 per cent. is indifferently stocked, countings showing less than 250 plants per acre on this area, while on the remainder, classed as well stocked, the average obtained is from 289 to 892 plants per acre.

In the West Salween division operations were again most successful in the Bilin Mèwaing reserve, all the plantations being well stocked and having an average of 541 plants per acre.

The Wamu reserve, with two taungyas only, had the highest average of 892 per acre.

The Sinzwè reserve shows an average of 513 plants per acre on three-fourths of the area cultivated, the remainder being indifferently stocked, and the Kahilu reserve 366 plants per acre on the two yas cultivated.

In the Ônkangyi and Bilakatkyi (Dôndami) reserves the areas indifferently stocked were 22 and 68 per cent. of the whole respectively, and the average on the remainder was 350 plants per acre in the former and 289 in the latter.

In the East Salween division the work in the West Mèpalè reserve was very successful, showing only eight per cent. of the area indifferently stocked and as high an average as 804 plants per acre, but this was partly due to some of the Karens planting in closer lines than 9 feet × 4 feet, the authorized distance.

The Ataran division shows on the whole indifferent results, the average on 54 per cent. of the area, representing the well stocked portion, being only 280 plants per acre.

It is believed the seed was at fault, having been picked too early in the season.

23. As shown in Statement 52 appended, the total area cultivated with teak up to date, inclusive of 23 acres of regular plantations of 1856 (not intended to be extended), amounts to 2,297 acres.

Total area cultivated with teak up to date.

24. The total expenditure on the area planted during the year was Rs. 1,758, but certain charges for taxes due on account of cultivators remained to be adjusted in the next official year.

Expenditure during the year on planting.

7.—Cutting of Creepers, Weeding, &c.

25. In the West Salween division 598 acres of the plantations of 1882, 1883, and 1884, and some of the older ones, were weeded and subjected to light clearing overhead at a cost of Rs. 1,243, or Rs. 2-1-3 per acre, the work being performed by the Kamu cooly establishment.

Weeding.

In the East Salween division 36 acres of 1884 were weeded twice, and 28 acres of 1883 once, by local Karen and other labour at a cost of Rs. 1-1-7 per acre, and in the Ataran division 76 acres of similar plantations were weeded at a cost of Rs. 1-3-2 per acre.

The total amount expended on weedings, inclusive of a small sum on the thitka plantation, Kahilu reserve, amounted to Rs. 1,428, equivalent to Rs. 1-13-3 per acre.

26. No direct creeper-cutting work was undertaken during the year except in the plantations and jointly with girdling work.

Creeper-cutting.

8.—Experiments with Exotics and other Trees.

27. The plants made little or no progress during the year, and there is little prospect of the experiment proving a success in the suppression of the kaing grass.

Cultivation of kyibin (*Barringtonia racemosa*), Sinzwè reserve.

Although the site is under water in the monsoon, yet it becomes, apparently, too dry at other times to suit the kyibin which, however, flourishes along the banks of watercourses quite dry in the hot season.

28. Of the 53 large *Hevea* trees and 10 seedlings in the plantation at the close of the previous year, two of the former succumbed to the attacks of white-ants and 10 of the latter were destroyed by deer.

Cultivation of Para India-rubber (*Hevea Brasiliensis*) at Mergui.

One hundred and twenty-one seedlings were raised from seed procured from the larger trees, but about 400 seeds failed to germinate, as the result of not being sown immediately after being picked.

Of these seedlings 10 were given away for experimental cultivation in Moulmein.

In addition 12 self-sown seedlings were obtained under old trees near a watercourse.

As a protection against further attacks of white-ants the roots of some of the trees were opened up and drenched freely with water, a treatment which has, apparently, succeeded well and which in one case caused the tree to seed more freely than any other tree.

The following are the sizes of 10 of the largest trees of 1877 in the plantation :—

No.	Height. Ft.	Girth. Ft.	Girth. In.
1	40 ×	2	6½
2	35 ×	2	1½
3	41 ×	2	2½
4	31 ×	2	2½
5	34 ×	2	4
6	33 ×	2	2½
7	34 ×	2	½
8	31 ×	2	
9	36 ×	2	½
10	38 ×	2	1½

Cultivation of *Castilloa elastica.*

29. Some seed was obtained from the Royal Botanical Gardens at Ceylon, but on receipt was found to have rotted in transit.

The two older trees of 1879 grow very slowly, but the four trees of two years age made good progress, being now of the following sizes :—

No.	Height. Ft.	Height. In.	Girth. In.
1	7	9	5½
2	7	6	6½
3	10		10
4	8	2½	7

Cultivation of Ceara (*Manihot glaziovii*) at Mergui.

30. The cultivation of this species was suspended during the previous year, consequent on the large number of older trees annually succumbing to white-ants.

During the year under review 31 of the larger and 21 of the smaller trees were reported as having been destroyed by these pests and porcupines.

Cultivation of *Ficus macrophylla* at Mergui.

31. There were four trees of fair size at the beginning of the year and 33 cuttings.

Subsequently 30 additional cuttings were put down, but among these 18 casualties took place.

Experiments show that the young plants grow exceedingly well if supplied with cattle manure and burnt earth.

Experimental cultivation of the Kyetpaung creeper (*Chevannesia esculenta*).

32. There are 230 plants of this creeper in the plantation which were incorrectly classed last year as *Parameria glandulifera.* The experiment gives little promise of success, the growth being exceedingly slow and the yield from even the largest creeper very small.

Experimental cultivation of the Talaingsôk creeper (*Parameria glandulifera.*)

33. There were 80 plants of this species on hand at the close of the year, nine having died. The growth is, apparently, as slow as that of the Kyetpaung, and the yield in *caoutchouc* from the largest creeper equally small as well as expensive to collect.

Cultivation of other species in the Mergui plantation.

34. The growth of the Malainben trees (*Broussonetia papyrifera*) continues unsatisfactory, but 40 seedlings set out in an open site are growing very well.

There are now 15 large and 44 small trees in the garden of Akyaw (*Aquillaria agallochum*) which are well established, but the growth is not so rapid as was anticipated.

Of the Manilla hemp (*Musa textilis*) 55 large trees remain, some having fruited and died down.

There were also 223 young plants on hand, 25 casualties having taken place.

The mahogany trees have continued to die off and only four now remain. It is evident the climate is not suited to this species.

The growth of the *divi-divi*, of which 1,472 shrubs remain, continues very slow. A few only on low ground seeded, and it may be assumed that this species requires a different climate altogether to that of Mergui.

Of indigenous and other fruit trees set out for shade there are 1,355 in all in the plantation.

Experimental cultivation undertaken out of the provincial grant.

35. On the area formerly assigned to the Civil Officer and re-transferred to the Forest Department control during the previous year there is the following stock of Liberian coffee trees :—

(1) Coffee trees, bearing	1,348
(2) Seedlings	2,461

A yield was obtained of 332lbs. of coffee in the husk and 200½ byis in the berry.

Of the former 112lbs. were sown in the plantation and 30lbs. supplied to the Deputy Commissioner, Mergui, for despatch to the Exhibition at Edinburgh, while

all the berries were made over to Mr. Watson, a planter near Tavoy, in exchange for some tea seedlings.

The coffee trees have not flowered so freely during this year as in the previous year, but they continue to be very vigorous and free from all symptoms of leaf or other disease.

Six hundred and seventy-eight seedlings and 1,090 plants of one year age were distributed to various applicants and the Karen Mission at Tavoy, and a few plants were set out for experiment at Lenya and Maliwun in the Mergui district.

The cultivation of the Arabian coffee is not very hopeful of results, a large number of the trees having died off.

Only 58¾lbs. of berries were obtained from 914 bearing trees.

The success of the cocoa cultivation continues doubtful, as although several of the trees flowered during the previous year, only one seed-pod was obtained, which failed to mature.

Two other trees have since flowered, and there are now 8 large and 10 smaller trees on hand.

The two vanilla creepers were cut up and re-planted as cuttings in a regular vanillery.

The nutmeg plants number 44 large plants and 181 small seedlings.

There were 30 casualties owing to various causes, but the growth of the plants continues very good.

The total expenditure incurred on these various experiments and charged against the provincial grant was Rs. 1,095-8-0.

Total expenditure on Mergui plantation.

36. In the Forest Department accounts the total expenditure on the main plantation during the year was Rs. 724-1-3.

Experimental cultivation of mahogany at Amherst and Moulmein.

37. Out of the 100 mahogany plants set out near Amherst in 1879 only 29 remained at the close of the year under review, and as all these young trees, with only one exception, are attacked by the borer referred to in previous reports, their early disappearance may also be expected.

The tree which has up to the present escaped the attacks of the borer is 15 feet in height and 11 inches in girth at 18 inches from the ground.

There were no casualties among the 14 mahogany trees planted out in the Moulmein Forest Office compound in 1879, but the leading shoots of six died in the hot weather.

The largest at the close of the year was 21 feet 2 inches in height and 16 inches in girth measured at two feet from the ground.

A seedling was set out and is doing well.

9.—Communications and Buildings.

Buildings, guard-houses, &c., constructed or repaired.

38. The contractors' accounts for the crane platform with jetty for shipping padauk timber at the Battery Point depôt were closed during the year by the payment of Rs. 3,021-12-5.

The crane having since given way owing to a flaw in the metal, the contractor has been requested to supply another in lieu of it.

An expenditure of Rs. 71-12-0 was also incurred in the Salween division in the construction of a fence in the Forest Office compound.

The erection of the 2nd class forest bungalow at Shwegôn on the Salween, sanctioned during the previous year, was completed and Rs. 2,536-14-1 expended, making the total amount spent thereon up to Rs. 2,670-10-1.

A guard-house on the river's bank in the Mupun quarter of Moulmein was constructed at a cost of Rs. 665-10-2, and three huts for the accommodation of the Salween river protective establishment were erected at Mi Bôn and Mèseik at a cost of Rs. 145.

The sale of the old hut at Mèseik realized Rs. 45.

In the East Salween division a sum of Rs. 80 was expended in taking down the roof and woodwork of the covered approach to the old office building

and re-constructing it at the site of the new forest bungalow, and in the West Salween division Rs. 15 were spent on the repair of the out-houses of the bungalow at Papun.

In the South Tenasserim division Rs. 20-4-6 were expended in re-thatching the Mergui plantation bungalow, and Rs. 5-12-0 in earth-oiling the Sinzeik depôt guard-house.

Steam-launch *Attaran*.

39. The steam-launch *Attaran* did good service throughout the year, having performed 137 trips, representing a total mileage of 5,827 miles, or 993 hours 40 minutes under steam.

The working expenses were for wages of crew, Rs. 1,488; for 60 tons coal, Rs. 1,415-3-0; for oil and wood-fuel, &c., Rs. 401-15-6; and for repairs, &c., Rs. 387-12-6, making a total expenditure of Rs. 3,692-15-0.

Opening up of streams for floating purposes.

40. In the South Tenasserim division no further examination was made of the rocks in the Mintha stream, Mintha reserve, for the purpose of noting the extent to which they are submerged during the rains.

Instructions have been given to test the practicability of floating light timber by having a few logs launched above the rocks when the stream is in full flood.

CHAPTER IV.

YIELD AND WORKING.

Departmental Operations.

General remarks.

41. The operations of the department comprised as heretofore girdling work, extraction of timber from the forests, recovery and disposal of drift timber, sale of timber, and its conversion and shipment.

1.—Departmental Operations.

Extraction of teak timber by Government agency.

42. During the year under review the extraction of teak timber by Government agency was as follows:—

Division.	Logs and pieces.	Tons.
Salween	1,595 ...	889
East Salween	9,422 ...	6,004
West Salween	2,556 ...	1,231
Ataran	1,853 ...	633
Total ...	15,426 ...	8,257

Compared with the outturn of the previous year there is a decrease of 6,367 logs and pieces extracted, but an increase in the cubical contents by 347 tons.

The outturn, however, was much less than was anticipated, consequent on about 8,000 logs of thaungyin timber of 1884 and some of 1885, as well as about 1,500 logs and pieces from the Upper Salween forests failing to arrive at depôt within the official year.

In the case of the thaungyin timber the delay was due to a block of over 40,000 foreign logs taking place in the Thaungyin river, while the delay in the arrival of the Upper Salween timber was the result of the disturbed state of the country near Papun.

Extraction of timber of other kinds.

43. Timber of other kinds was also extracted to the following extent:—

Division.	Logs.	Tons.
Salween	12 ...	8
East Salween	524 ...	558
West Salween	115 ...	83
Ataran	724 ...	762
Total ...	1,375 ...	1,411

Conversion of timber.

44. In the Salween division 199 drift teak logs and pieces measuring 85 tons, and 31 pyinma logs measuring 21 tons, were converted and utilized in the construction of the forest bungalow at Shwegôn on the Salween, the Forest Office fence at Moulmein, and Mupun guard-house.

In the South Tenasserim division 26,409 pyingado narrow-gauge sleepers and 13 pieces pyingado scantling were converted at Tavoy.

Shipping operations.

45. The following quantities of timber were shipped from Moulmein during the year to the gun-carriage factories at Bombay, Madras, and Rangoon :—

		Tons.	C. ft.	In.	Pts.
Bombay ...	Padauk logs ...	341	8	0	1
	Ingyin (sâl) ...	15	5	2	2
Madras ...	Teak logs ...	229	12	10	10
	Padauk logs ...	31	4	11	8
	Pyinma logs ...	18	21	11	7
Rangoon ...	Padauk logs ...	5	21	8	11

From Tavoy 1,400 narrow-gauge pyingado sleepers and 13 pieces scantling were shipped to Calcutta and 25,009 to Rangoon, whence they were ultimately despatched to Madras by the purchasers.

Sales and disposals during the year at depot.

46. The number of logs, pieces, and scantling disposed of during the year by public and private sales and on indent to public departments was as follows :—

	Tons.
Teak	11,028
Pyinma	298
Padauk	422
Padauk (branches)	3
Thitka	614
Thitkado	7
Ingyin	15

In the eight public sales held during the year the prices on teak logs and yathits varied from Rs. 12-14-10 to Rs. 25-5-3 per log, the average being Rs. 16-6-9.

The average prices realized on teak pieces and crooks were respectively Rs. 10-11-6 and Rs. 2-11-10 each.

Disposals of timber in the forests.

47. In the East Salween division 1,463 pyingado posts and spars and two thingan spars were delivered to the Telegraph Department at various sites for the construction of the new telegraph line connecting Moulmein and the Siamese frontier at Myawadi on the Thaungyin river. The amount realized on this timber was Rs. 14,956.

In the Ataran division one pyinma and one thingyan log were disposed of in the district for Rs. 7.

Collection of drift timber.

48. The salving operations of the year resulted in 202 sea-drift and 4,991 river-drift teak logs and pieces, and 22 logs of other kinds, being collected and brought to depôt at Moulmein at a cost of Rs. 27,940-7-1 for salvage, &c., and Rs. 1,064-6-1 for purchase of rope, stores, &c., making a total of Rs. 29,004-13-2, equivalent to Rs. 5-9-0 per log or piece.

The balance on hand from the previous year being 1,609 logs and pieces, the quantity available for disposal was 6,824 logs and pieces, of which 1,059 logs were made over to claimants on payment of salvage dues, 107 logs transferred to the Salween division account, and 3,583 logs and pieces sold by public auction, leaving a balance of 2,075 logs and pieces at the close of the year.

The revenue realized was Rs. 4,894-8-0 as salvage dues and Rs. 37,381 at public sales, which with outstandings of the previous year made a total of Rs. 43,847.

In the South Tenasserim division 12 sea-drift teak and two other logs were collected by the drift timber salvors. Of the former, eight realized by sale Rs. 309, and the latter only Rs. 5-8-0, of which Rs. 156 were paid to the salvors.

2.—*Girdling.*

Girdling in teak localities.

49. In accordance with the rough working plan sanctioned for the East and West Salween divisions, and the permission of the local Government, girdling operations were conducted in teak localities to the following extent during the year:—

	Reserved forests. Number of trees girdled.	Unreserved forests. Number of trees girdled.	Total.
East Salween division— Block I	930	170	1,100
West Salween division— Block IV	1,000	...	1,000
Ataran division	...	198	198
Total	1,930	368	2,298

Girdling of other species than teak.

50. In the East Salween and Ataran divisions 250 padauk trees were girdled in unreserved forests in the Haungtharaw and Zammi valleys.

Selection of the trees.

51. In the East Salween division the girdled trees were all selected by Mr. Hauxwell, the Divisional Officer, and were of particularly fine growth, 80 per cent. being 7½ feet in girth and above.

A noticeable feature in the tracts over which the work was conducted was a slightly larger proportion of II class trees than was observed in the lower Ônkaraing forests, as well as a fair proportion of seedlings and young poles. The tract at the sources of the Bubaw chaung was passed over, as the majority of the I class trees were found to be only a little over six feet in girth. In the West Salween division the work was conducted by trained Forest Ranger Shwe Ka, who had been fully instructed in the work of selection during the previous year.

In some of the tracts examined by the Conservator selection was not found to be altogether satisfactory, too small a percentage of the I class trees having been left to shed seed, as although those of the II class were fairly abundant, yet their presence could not be depended upon in every instance to insure a uniform distribution of the seed.

In the Ataran division all the girdled teak trees and 30 of the padauk trees were selected by Mr. Barnard, the Subdivisional Officer.

The remainder of the padauk trees and those in the East Salween division were selected by one of the Karen girdling writers, who received instruction during the previous year.

Further particulars and details regarding the work will be found noted in Appendix D.

3.—*Removal of Timber by Purchasers.*

General remarks.

52. As was the case during the previous year, the low prices ruling for teak of II class of inferior quality have continued to affect very sensibly the demand for timber of other kinds, and the arrivals of such timber at the revenue stations exhibit in consequence a large decrease as compared with those of the previous year.

The demand for timber for tea-boxes has been likewise entirely suspended during the year.

In the Tavoy and Mergui districts the falling off in the extraction of this timber is reported to be due to general trade depression.

The outturn of teak from the various leased forests also exhibits a falling off, doubtless owing to the low prices prevailing for inferior teak.

Teak timber removed from the forests by lease-holders.

53. During the year 1,979 teak logs, pieces and crooks, or 1,187 tons, were extracted from the following leased forests :—

	Logs.	Pieces.
Mittigeik and Mittigeik Kodugwè forests, Ataran division	448	187
Mègwa and Kyunchaung forests, Ataran division	48	178
Pandaw forest, Salween division	464	654
Total	960	1,019

54. From the Mittigeik-Kodugwè forests were also extracted 310 thitka logs of 155 tons, 20 pyinma logs or 10 tons, and 51 thitkado logs measuring 25½ tons, the lessee having the right to extract timber of all kinds other than teak subject to an *ad valorem* duty of 10 per cent.

Timber of other kinds removed from leased forests.

55. The following timber was reported for duty at the revenue station during the year,—5,989 logs, pieces, and crooks :—

Timber from the leased forests on which duty was collected at the revenue stations.

Ataran division	Kyunchaung	48 full-size logs. 178 stem-pieces.
	Mittigeik and Mittigeik-Kodugwè	844 full-size logs. 1,091 under-size logs. 389 stem-pieces. 852 crooks.
Salween division ...	Pandaw forest	52 full-size logs. 427 under-size logs. 203 stem-pieces. 1,905 crooks.

Of other kinds of timber, 449 thitka logs, 20 thitkado, one yemenè, three pyinma logs, and nine thingan boat-hulls, all from the Mettigeik-Kodugwè forests, were also passed on payment of duty.

56. The total quantity of timber of the reserved and unreserved kinds extracted under trade permits and reported for duty was 1,323 logs or 1,436 tons of the former, and 21,252 logs or 3,289 tons of the latter, full particulars of which are noted in annexed Form 54.

Timber removed from the forests under trade licenses.

Compared with the figures of the previous year, the arrivals at the revenue stations exhibit a decrease of 499 tons in the case of timber of the reserved kinds and 9,093 tons of the unreserved kinds.

57. Consequent on duty being levied on the number of individuals collecting or manufacturing various kinds of minor forest produce, there is no means of accurately ascertaining the quantities removed.

Minor forest produce removed by purchasers.

From the particulars noted in appended Forms 54 and 55 it will be seen that a total sum of Rs. 51-8-0 was realized on the manufacture of charcoal in all divisions and in the collection of wood-oil Rs. 128 in the Salween, East Salween, West Salween, and Ataran divisions.

The revenue realized on No. X, licenses for wood-oil, in the South Tenasserim division was Rs. 1,633, or Rs. 52-8-0 in excess of the amount of the previous year.

This was due to an increase as anticipated in the Tavoy district, which was partly counterbalanced by a small decrease in the Mergui district.

58. Under section II of the Forest Rules free licenses were granted to the following extent for the construction of buildings and other works for the common benefit of the public :—

Free licenses of timber of the reserved kinds.

	Number of licenses.	Number of logs.									
		Pyinma	Karawè.	Thingan.	Ingyin.	Thitka.	Kashwè.	Taungbain.	Anan.	Pyingado.	Teak.
Amherst district ...	25	171	...	30	12	9	25	1	30	165	14
Salween do. ...	1	...	...	...	...	...	...	...	...	...	30
Tavoy do. ...	3	...	30	22	...	...	...	...	...	...	...
Mergui do. ...	8	16	...	20	...	...	...	...	99	...	...
Total ...	37	187	30	72	12	9	25	1	129	165	44

4.—*Summary of Produce removed from the Forests.*

Total yield of the forests.

59. The total yield of the forests of the Tenasserim circle during the year was as follows :—

	Teak.			Timber other than teak.		
	Logs and pieces.	Scantlings and sleepers.	Total.	Logs and pieces.	Scantlings and sleepers.	Total.
By Government agency ...	15,438	...	15,438	1,376	1,413	2,789
By lease-holders	5,989	...	5,989	482	...	482
By purchasers in the forests ...	...	...	...	22,575	...	22,575
Under trade licenses	...	...	...	...	...	...
Under free licenses	44	...	44	630	...	630
Total ...	21,471	...	21,471	25,063	1,413	26,476

5.—*Import and Export of Forest Produce.*

The import trade during the year.

60. Owing to the neaping in the Thaungyin river of over 40,000 logs and pieces of foreign timber, and the decline in the price of teak in the Moulmein market, as well as the general disinclination of the Chetties to lend money, the importation of teak timber during the year shows a decrease of 35 per cent. on the outturn of the previous year.

One satisfactory feature was a large decrease in the importation of pieces and undersized timber, the decrease in such timber varying from 44 per cent. in the case of the Karenni, and 76 and 78 per cent. in the case of the Dagwin and Thaungyin forests on the yield of the previous year.

Foreign teak timber imported by the Salween river and reported at the Kado revenue station.

61. The number of teak logs and pieces imported during the year amounted to 130,110, having a tonnage of 117,099 tons.

Details as to the yield of the several forests and proportion of undersized timber imported will be found noted in Appendix E.

Decrease in importation.

62. Compared with the previous year's importation, the year under review exhibits a decrease of 50,148 logs, or 28,219 tons, and of 21,629 pieces representing 12,832 tons, or a total decrease of 71,777 logs and pieces, equivalent to 41,051 tons.

The percentage of decrease in the outturn of the several forests is noted in Appendix E.

Comparison with the importation of previous years.

63. The yearly importation of foreign teak by the Salween for the past five years will be found noted in Appendix E, and the names of the principal importers and the quantity imported by each in statement Appendix H.

Foreign timber of other kinds imported by the Salween.

64. The importation of timber of other kinds continued to show a decrease, being only 13 logs, namely, 11 of pyinma and two of thitkado, as compared with 59 logs during the previous year.

Transactions in foreign teak timber at Kado.

65. The transactions in foreign timber at Kado as shown in Form 56 commenced with an opening balance of 92,104 logs, or 73,683 tons, and closed with a balance of 60,145 logs estimated at 61,126 tons.

Registration of hammer-marks.

66. During the year 138 new hammer-marks were registered at the Rs. 100 rate of fee, 20 marks transferred at the Rs. 10 rate, 69 time-expired marks at Rs. 25 each, and the registra-

tion of 44 marks was renewed at the Re. 1 rate, making a total of 271 marks registered, renewed, and transferred at a cost of Rs. 15,769.

Total quantity of foreign timber imported into Moulmein from Kado.

67. The total quantity of foreign teak timber imported into Moulmein from Kado during the past two years and value of the same was as follows:—

Years.	Logs.	Tons.	Value. Rs.
1885-86	156,440	133,909	50,17,408
1884-85	154,190	123,352	61,91,504
Increase in 1885-86	2,250	10,557	...
Decrease in 1885-86	...	...	11,74,096

The average value during the year was Rs. 32-1-2 per log, or Rs. 37-7-6 per ton, which shows a decrease in the selling price compared with that of the previous year of Rs 12-11-0 per ton.

Export trade of teak to Europe.

68. The export trade of the year under review has been the most unfavourable one on record since 1865 and as such appears to call for special notice.

Prices at Moulmein stood at Rs. 110 to Rs. 120 per ton for Europe squares in April, but declined gradually owing to the unfavourable state of the Home market, and at the close of the year it was difficult to find buyers at even Rs. 90 per ton, and for small lots even Rs. 80 per ton.

For 18 inches by 18 inches squares, only 15 to 22 feet in length, similar prices were obtainable consequent on such timber being in demand among railway carriage builders both in the United Kingdom and in France.

In the early part of the year small cargoes in the Home market realized as much as £14 to £15 per ton, but at its close cargoes offering at £12-10 per ton could not be disposed of. Subsequently small lots were sold at as low as £11-10 per ton.

Freights also declined during the year from 45*s.* to 50*s.* to Europe to 37*s.* 6*d.* and 42*s.* 6*d.* per ton.

The stocks on hand in the Home market at the close of the year were not far short of 30,000 tons owing to nearly all the later arrivals being stored on importers' or shippers' account, as the result of the ship-building trade having come to a standstill.

The Clyde market was also greatly depressed by false reports of a large increase in shipments of teak from Rangoon as the outcome of the annexation of Upper Burma.

At the close of the year also at Moulmein all the European owned saw-mills were standing idle.

Export trade of teak to Indian markets.

69. Prices for the inferior quality of squares, averaging 33 to 37 cubic feet, for the Indian markets have been fairly steady throughout the year at Moulmein, prices ranging, according to quality from Rs. 30 to Rs. 40 per ton up to Rs. 45 and Rs. 55 per ton.

Prices for ordinary, small, converted teak timber for the Indian market varied from Rs. 30 to Rs. 70 per ton, while for teak shingles prices declined from Rs. 15-8-0 to Rs. 10-8-0 per 1,000.

Considerable shipments of planks and small scantling took place to Bombay by Native firms, but prices at Bombay offered no inducements to other shippers, as they varied from Rs. 50 to Rs. 60 per ton in the case of the II class squares to Rs. 65 and Rs. 85 for those of 1st class quality.

Freights being as low as Rs. 10 to Rs. 14 per ton, and Rs. 9 per ton in one instance, enabled some business to be done.

Shipments to Madras were brisk on the part of Native exporters, but among European firms very little business was undertaken.

Export trade of other kinds of wood.

70. There was no demand for timber of various kinds for manufacture of tea-boxes, and very little for such wood for ventilator boards, owing to the exceedingly low prices at which 2nd class teak was obtainable.

Some large and very select squares of thitka were shipped to the Home market in the expectation of competing with mahogany, the importation of which

of late years into London has consisted to a large extent of small-sized timber of indifferent quality.

Exports of timber.

71. The exports of teak from Moulmein during the year amounted to a total of 105,240 tons and 4,059,500 shingles and other scantling, having a total value of Rs. 84,08,841.

Compared with the exports of the previous year, they exhibit a decrease in the case of shipments to Europe, but a total increase in tonnage to the extent of 9,391 tons and a falling off in value of Rs. 3,00,140.

In Appendices C.I, C.II (*a*) I and J, will be found details of the exports in question and of timber of other kinds, the ruling prices in the Home and Indian markets, freights per ton, and a list of the principal exporters.

The shipments of other kinds of timber to Bombay and Madras consisted chiefly of padauk and ingyin timber, supplied by the Forest Department to the Gun-carriage Factories.

CHAPTER V.

Financial Results.

General remarks.

72. The circumstances which contributed to the large falling off in the importation of foreign timber operated also on the outturn of the Government forests and seriously affected the financial results of the year, the jam of over 40,000 logs of foreign Thaungyin timber in the Kamawkala gorge of the Thaungyin river causing the non-arrival within the official year of upwards of 9,000 logs of British timber.

In addition to this the timber-launching operations in the Upper Salween forests, north-east of Papun, were interrupted by the disturbances occasioned by the Shan insurgent dacoits in that district, and resulted in the late arrival of about 2,000 logs and pieces at the booms in the Salween.

Consequent on these late arrivals of timber from the East and West Salween divisions, and short-delivery of timber of good quality from the Ataran forests, as well as the inability of the Madras Gun-carriage Factory to meet a payment of Rs. 21,793 within the official year, the receipts at the close of the year fell short of the budget-estimate by Rs. 1,14,757.

The expenditure was, of course, considerably reduced by the late arrivals of timber and showed savings in all of Rs. 73,485, whereby, notwithstanding the large decrease in receipts, a net revenue was realized of Rs. 1,00,728.

Revenue and expenditure during the year.

73. The following figures exhibit the revenue and expenditure, full details of which and of the proportion contributed by the different divisions will be found in Appendix G:—

		Rs.
Revenue		4,19,243
Expenditure—		
A.—Conservancy and working	Rs. 2,29,311 ...	3,18,515
B.—Establishment	„ 89,204 ...	
Net revenue		1,00,728

Comparison of revenue with figures of the budget.

74. The revenue anticipated in the regular budget being Rs. 5,34,000, the cash receipts for the year fell short by Rs. 1,14,757.

The difference is chiefly accounted for by the receipts under I*a*, sales of timber extracted by Government agency, falling below the estimate by Rs. 1,33,298.

This decrease, less Rs. 3,200, excess receipts on timber worked from the Salween division, was chiefly occasioned by short deliveries of about 9,000 teak logs and pieces from the Thaungyin forest, East Salween division, and about 2,000 teak logs from the Upper Salween forests, West Salween division, equivalent in value to about Rs. 98,000, and of 1,600 teak logs and pieces from the Ataran forests, valued at about Rs. 13,000, the balance being accounted for by short deliveries of some timber of other kinds, valued at Rs. 7,000, and the non-receipt within the official year of a sum of Rs. 21,793 due by the Gun-carriage Factory, Madras, on timber supplied.

The receipts under AII, timber and minor produce removed from the forests by consumers and purchasers, also fell short of the estimate.

On the other hand the difference between the receipts of the year and the budget-estimate was slightly counterbalanced by an increase of Rs. 8,662 under AIII, drift and confiscated timber, and Rs. 8,345 under AV*a* and *c*, resulting from fines no longer being in all cases credited to Law and Justice, and from a sum of Rs. 5,630 being credited under the head AV*c*, on account of pyingado sleepers sold under exceptional circumstances in the South Tenasserim division with the sanction of the local Government.

Savings in expenditure.

75. The expenditure during the year compared with the budget-estimate exhibits a saving of Rs. 73,485, namely,—

	Rs.
Budget-estimate	3,92,000
Actual expenditure	3,18,515
Total savings ...	73,485

The reduction was effected chiefly under AI, timber, &c., removed by Government agency, under which head there was a saving of about Rs. 60,300, the balance being made up by savings of Rs. 1,181 under AIII, Rs. 2,041, under AVIII, and various other savings under other heads of A, together with savings under B, establishment, to the extent of Rs. 8,346.

Outstandings.

76. The outstandings in the contractors' and disbursers' ledgers amounted at the close of the year to Rs. 1,01,312-6-6, of which Rs. 99,234-14-0 represented advances to contractors, covered by work done and by mortgages of elephants, and Rs. 54,491-14-0, the amount which has since been recovered, the balance comprising minor advances in course of early adjustment.

CHAPTER VI.

General Remarks.

Changes in the controlling establishment.

77. No changes took place during the year in the controlling establishment. Mr. C. W. Palmer, Deputy Conservator, 3rd grade, and Mr. Hauxwell, officiating Deputy Conservator, 3rd grade, continued respectively in the charge of the South Tenasserim division and East Salween division, and Mr. A. Weston, officiating Deputy Conservator, 4th grade, and Mr. J. C. Murray, officiating Deputy Conservator, 4th grade, in charge of the Salween division and Shwegun sub-division respectively.

Mr. C. W. Palmer was absent on privilege leave from 29th June to 5th August.

Health of superior officers.

78. The health of superior officers continued good with some few exceptions. Mr. Hauxwell was indisposed a few days, toward the end of the rains, by reason of an attack of dysentery, and Mr. Barnard suffered several weeks from a severe attack of rheumatism brought about by exposure in the rains.

Changes in the subordinate forest establishment.

79. Forest Ranger Agetty being found incapacitated for further duty was discharged with a gratuity on the 20th March 1885 and trained Forest Ranger Shwe Ka was appointed to the vacancy thus caused as Ranger, 5th grade, from the 15th August.

Forest Ranger Po Tu was transferred from the West Salween division to the Shwegun subdivision on the 15th August 1885 and Forest Ranger Shwe Ka from the Salween division to the West Salween division.

Health of the subordinate establishment.

80. Forest Ranger Shwe Ka, West Salween division, was on several occasions prostrated with fever for short periods, and Forester Maung Su, South Tenasserim division, was again laid up for some time. With these exceptions the health of the subordinate establishment continued good.

Organization of forest ranges and beats.

81. No changes have occurred in the extent and number of the different ranges and beats, which remain as noted in paragraph 91 of the Administration Report for 1884-85.

Efficiency of the subordinate forest establishment.

82. With few exceptions the subordinate forest establishment is reported to have worked well throughout the year.

A difficulty still exists in filling up the lower appointments with men of suitable attainments, coupled with the requisite physical fitness, and local knowledge.

Elephant establishment.

83. One casualty took place in the elephant establishment of the East Salween division from some unknown cause, but there is reason to believe the animal, a male of considerable size, succumbed to the after effects of a long march through the hills when not in a very fit condition for such a strain.

No additions were made by purchase, and the total elephant establishment at the close of the year comprised two elephants and a calf at Moulmein, two females in the Ataran division, and two females in the East and West Salween divisions making a total of seven animals.

Appendix A shows the cost of feed and keep to have been Rs. 32-14-9 per animal.

Purchase of elephants.

84. During the year 22 elephants were purchased for other departments as shown below :—

	No.
Topographical Survey Department	3
Military Transport Department	19
Total ...	22

The prices paid were, on an average, Rs. 1,196 per animal.

Interchange of seeds, &c.

85. In the Salween division 12 bags or 36 baskets of teak seed were collected in the Lower Salween forests for despatch, at a cost of Rs. 82, to the Deputy Conservator of Forests, Orissa, Cuttack, and 60 baskets or 26 maunds of "Kyekap" bamboo seed (*Bambusa arundinacea*) were obtained in the East Salween division at a cost of Rs. 333-15-0 for despatch to the Conservator of Forests, Hyderabad Assigned Districts.

Specimens of wood fibre, &c.

86. Specimen pieces both with and across grain, 2 inches × 3 inches and 6 inches long, of padauk, pyinma, pyingado, ingyin, and thingan were supplied for the use of the School of Military Engineering at Chatham.

The following specimens and articles were forwarded for the London Exhibition of 1886, the bamboo stems being in lengths of 20 feet:—

50 Tabendaing	*Bambusa villosala.*
50 Wanet	*Gigantochlon Macrostachyu.*
50 Wabo	*Dendrocalamus Brandisii.*
2. small varnished baskets ...	Coated with the resin of the *Melanorrhœa usitata.*
5lbs. petwun fibre	*Berrya amonilla.*
8lbs. kadapungan flowers ...	*Cassanga odorata.*

22 Kinds fibres of the kinds sent to the Edinburgh Exhibition.

Anacordium accidentate	...	Thiho thayet...	... Seeds. Oil from seed. Shells. Oil from seed. Kernels. Gum.
Casuarina equistafolia	...	Kabwè ...	... Resin.
Pithicolobium colentum	...	Tanyinbin ...	... Resin.
Callophyllum inophyllum	...	Pôngyet ...	... Resin. Fruit.
Garcinia cernea ...	...	Paragyè ...	... Resin. Juice. Leaves.
Cerbera odeleum ...	...	Kalwa ...	... Oil of seed kernels. Fruit.
Himenia americana...	...	Pinlèsu ...	... Fruit. Kernels.
Arenga sacharifera...	...	Tônôn ...	... Fibre. Pith.
Ghika elegans ...	...	Chè ...	... Wood.

Cinnamomum ...	Lulin kyaw ...	Roots. Leaves. Bark. Stem.
Gardina obtusifolia...	Yenkhat ...	Resin.
Parameria glandulifera	Kyetpaung ...	Juice.
Doona zieberthumus ...	Doorian ...	Seeds.
Urceola elastica ...	Talaingsôk ...	Juice.
Myristica curticosa ...	Thowzar deikpo	Juice.
Excorcuria agallocha	Tanyan ...	Juice.
G. Mangostana ...	Mangostein ...	Fruit, kind of fruit.
Fragora fragrono ...	Anan ...	Bark.
——	Nyawè ...	Juice Roots. Leaves.
——	Nyathain ...	Juice. Stem. Leaves.
Pauknwè ...	Fibre ...	*Butea Superba.*
Kamahlaing ...	Do. ...	——
Zinban ...	Do. ...	*Hibiscus Tiliaceus.*
Shawbyu ...	Do. ...	*Sterculia versicolor.*
Shawmi ...	Do. ...	*Sterculia villosa.*
Paungnet... ...	Resin ...	*Callophyllum inophyllum.*
Padauk	Gum ...	*Pterbcarpus macrocarpus.*
Petwun	Fibre ...	*Berrya amonilla.*
Pyu	...	*Rhizophora mucronata.*
Kalamet	...	*Cordia fragrantissima.*
Paungnet ...	...	*Callophyllum inophyllum.*
Thitpauk ...	...	*Tetremeles nudiflora.*
Panthitya ...	...	*Vatica lancefolia.*

Tours of Conservator.

87. On the 11th April the Conservator visited Mhawbyi on the Salween river and was absent in the Ataran division on the 17th and 18th April, and on tour in the South Tenasserim division between the 6th and 13th May.

The Conservator visited the Pawwun creek, Salween river, on the 8th June, and proceeded on tour to the West Salween division on the 5th August.

Between the 11th and 14th August the plantations in the Sinzwè reserve and Wamu reserve near Papun were inspected, and leaving Papun on the 17th the Conservator returned to Moulmein by the 19th.

From the 23rd September to the 6th October the Conservator was absent on tour in the South Tenasserim division, and on the 22nd October Mawbyi on the Salween was again visited, as also Tunaing on the Salween on the 10th and 20th, and Pawwun creek on the 25th November.

Starting on the 27th November the Conservator proceeded by Kyaen on the Zami branch of the Ataran river and the sources of the Dah river to Wettagon on the Haungtharaw river, and thence *viâ* Kawkanu on the east bank of the Haungtharaw to Mitan and Megwiwa.

After examining the forest on the Mètawan and Ansa streams, and the tracts west of Kapaungkla, the Conservator proceeded by the sources of the Winlun and Gwungyi streams into the Ataran valley, and returned to Moulmein by the 10th December.

The Krummagu and Misan forests east of the Salween were examined by the Conservator between the 18th and 23rd January, and proceeding up the Ataran valley on the 30th January the Conservator examined the padauk and teak tracts on the Kawpawti and Pilukat chaungs, and the girdled trees of the season on the Enpathwè, Nandetaung, and Natchaung streams, and returned to Moulmein on the 13th February.

Between the 8th and 15th March the Pandaw and Gyochaung teak tracts were visited by the Conservator and the Kahilu, Dôndami, and Sinzwè reserves, in the West Salween division, between the 22nd March and 5th April.

Services of officers and subordinates.

88. The Conservator has reason to be satisfied with the manner in which the several Divisional Officers performed their respective duties and with the work of the office superintended by Mr. Johnson.

W. J. SEATON, COLONEL,
Conservator of Forests, Tenasserim Circle.

REPORT

ON

FOREST ADMINISTRATION

IN

THE PEGU CIRCLE

For the year 1885-86,

BY

E. P. POPERT, Esq., Offg. Conservator of Forests.

INTRODUCTION.

Act and rules.

THE Act and rules remained unaltered during the year.

Explanatory note of Act rules compiled.

2. The compendium mentioned in paragraph 5 of last year's report has been compiled and circulated.

Treatment of village forests.

3. It has been decided that village forests for the use of cultivators and villagers shall not be reserved under the forest rules, but be taken up under the ordinary revenue rules. They are to be treated as grazing-grounds, and a quinquennial joint report by a Forest and the Subdivisional Officer or Superintendent of Supplementary Survey is to be submitted stating the number of years, in no case to exceed five, during which the villagers are to be allowed to cut timber and firewood.

Proposed abolition of teak restriction on revenue-paying lands.

4. In the Tharrawaddy division, in which forest reservation is completed, it is proposed to relax Rule 55 of the Act regarding teak trees standing upon revenue-paying lands; and, with this object, outlying patches or clumps of teak trees are being demarcated, and measures taken to sell or remove marketable teak outside these clumps. The disturbed state of the district interfered with the progress of the work, but it is hoped it may be completed next season, after which the Prome district will be similarly treated.

CHAPTER I.

AREA AND BOUNDARIES.

1.—Area.

Increase to area of reserved forests.

5. Three reserved forests, aggregating 90 square miles, in the Shwegyin district, namely, Tôngan 32 square miles, Upper Kanyinmyaung 13 square miles, and Lower Kanyinmyaung 45 square miles, have been sanctioned during the year. These reserves are poorly stocked, but will become valuable as sources of supply for villagers along the line of the Toungoo Railway.

Exclusion of part of Thayet East Yoma reserve.

6. To permit the formation of a cordon of villages along the late frontier in the Thayetmyo district, a part of the Thayet East Yoma reserve, 16 square miles in extent, was excluded under sanction of the Government of India.

Proposed abandonment of part of Thitpyat fuel reserve.

7. To provide accommodation for the inhabitants of Taikkyi village, the part of the Thitpyat reserve in the Rangoon division to the west of the Rangoon and Prome Railway, about three square miles in extent, has been proposed for

abandonment, and in return an area, amounting to about 16·6 square miles, has been preliminarily notified for reservation on the eastern side of the line.

Pabè and Chaungmangè proposed reserve rejected.

8. The proposal to reserve the teak forests on the Pabè and Chaungmangè streams has been rejected, as its reservation would limit the cultivation of the betel-vine by the Karens in the neighbourhood.

Proposed reserve in Henzada district.

9. In lieu of the large tract originally proposed in the Henzada district, one block, about 200 square miles, has been preliminarily notified.

No settlement work during year.

10. Forest settlement work had to be held in abeyance; no Civil Officer could be spared.

Thayetmyo village cutch forests still unsettled.

11. Nothing definite was settled during the year regarding the village cutch forests in the Thayetmyo district. Proposals have been submitted by a Native Magistrate, but the Deputy Commissioner wishes to visit these tracts with a Forest Officer before recommending their adoption.

Résumé.

12. The area of several reserves in the Tharrawaddy division has been found incorrect by the survey and the following statement shows the existing state of affairs:—

Division.	Name of reserve.	Sanctioned.		Awaiting.		Areas abandoned and altered by survey during the year.	Karen areas.
		Previous to 1884-85.	During year.	Settlement.	Preliminary notification.		
Prome ...	...	675	...	...	...	16	48
Tharrawaddy ...	...	874	...	...	...	4	175
Rangoon ...	...	901	...	...	..	...	127
	South Zamayi extension ...	...	...	2	..	...	...
	Shwelaung	...	...	...	70	...	...
	Pyinma	...	...	...	30	...	...
Toungoo ...	...	758	...	...	...	...	65·5
	Myohla	...	...	25	...	...	...
Shwegyin ...	...	17	...	...	...	...	...
	Tôngan	...	32	...	...	...	...
	Upper Kanyinmyaung ...	...	13	...	...	...	...
	Lower Kanyinmyaung ...	...	45	...	...	...	...
	Yènwè	...	...	120	...	...	...
	Nyabwa	...	...	100	...	...	...
Western ...	Myanaung Yoma	...	...	200	...	...	...
	Total ...	3,225	90	447	100	20	410·5

This gives a total of 3,295 square miles including 410·5 Karen areas.

2.—*Boundaries.*

Demarcation of Thandaung and other reserves in Toungoo division.

13. The Thandaung reserve in the Toungoo division, with an approximate boundary line of 41 miles, has been demarcated with 165 boards, and the trees along it blazed and hammer-marked. The cost was Rs. 66-8-0.

The cost of demarcation of the West Swa, Lônyan, and Sabyin reserves (omitted in last year's report) amounted to Rs. 351, Rs. 119, and Rs. 238 respectively.

Upper and Lower Kanyinmyaung reserves demarcated.

14. The Upper and Lower Kanyinmyaung reserves in the Shwegyin division sanctioned during the year were demarcated with 94 boards and five mounds with posts, and 205 boards and 12 mounds respectively. The trees along the boundary lines require further blazing and marking. The expenditure was Rs. 45 and Rs. 81-4-0, and the approximate lengths of boundary lines 16 and 30 miles, representing a cost of Rs. 2-13-0 and Rs. 2-11-4 per mile. This does not include price of boards which were supplied from the Toungoo division.

Renewal of boundary marks in Prome and Tharrawaddy.

15. In the Prome division the boundary pillars and marks round eight reserves were repaired at a cost of Rs. 283-4-0.

Minor repairs to the boundary-marks of three reserves in the Tharrawaddy division were executed for Rs. 34-8-0.

Bridle-path cleared round reserves in Rangoon division.

16. The work of clearing a 10-feet bridle-path round the reserves in the Hlaing subdivision was continued during the year. Thitpyat, Kyetpyugan, and Hmawbi reserves were completed, and Thabyu and Hlaing Yoma reserves nearly so. In all, up to the close of the year, Rs. 3,044-1-8 had been expended, for which 360,174 running feet of path 10 feet wide had been cleared, and 561 mounds and posts erected. The cost of the work cannot be considered high. The boundary line of the Magayi reserve was also cleared and boards nailed up.

Additional boundary-marks for Toungoo reserves.

17. Additional boards have been placed along the boundaries of the Bôndaung, Saing, and Pyunchaung reserves, and the earth mounds repaired at an expenditure of Rs. 340-6-0. Boards round the Karen areas in the Kabaung reserve have still to be put up, the work having been stopped by dacoits.

CHAPTER II.

1.—Surveys.

Survey report.

18. The following is a summary of a report kindly furnished by Mr. Hörst, Deputy Superintendent in charge :—

Strength of party.

"(1) The party took the field in the commencement of December and consisted of—

1 Deputy Superintendent,	22 Sub-surveyors,
5 Assistant Surveyors,	2 Burman apprentices.

In April two of the most efficient sub-surveyors were transferred to Mandalay.

Detail survey.

"(2) The detail survey camp extended over the Taungnyo valley, Tharrawaddy district, Shwelo forest range, Prome civil district, and the Shwedaung hill tract, also in the Prome district.

Traverse survey.

"(3) The traverse camp carried on advance work north of the boundary of the Tharrawaddy forest division and extended roughly as far as latitude 19°.

"The following forests fell into the season's work :—

Taungnyo.	Kadinzauk.
Pazingyè.	Shabaung.
Nyanlè.	Pensaik.
Kanni.	Padetmyaung.
Upper and Lower Tapan.	Kyaukyitaung.
Bwet.	Lèzè and Inma.

Tayôkmaw.

Results.

"(4) The proposed programme and actual outturn compare as follows :—

	Proposed. Square miles.	Carried out. Square miles.
Detail survey, 2-inch scale	130	131
Detail survey, 4-inch scale	270	199
Traverse survey	400	263
Triangulation	400	245
Overlap, 2-inch scale	..	12
Overlap, 4-inch scale	..	11

The work of all parties was seriously interrupted upon several occasions by bands of dacoits, and eventually on the 17th April field operations had to be entirely suspended. An interpreter and three khalasis met with a brutal death at the hands of the dacoits, and Mr. Gibson narrowly escaped. By this untimely closing about six weeks of the working season were lost, otherwise the programme proposed would have been exceeded.

Advisability of continuation of traverse survey next year.

"(5) If the party be transferred next season to Upper Burma, a strong detachment of it should be left in Lower Burma to fill up unsurveyed gaps and to square up the detail survey to meridian 96° on the east and latitude 19° on the north. If this work be delayed, many stations will be destroyed by wild elephants and Burmans, and when the survey is taken up again fresh traverses will have to be run, involving delay and unnecessary heavy expense.

Portions of field sections unavoidably left unsurveyed.

"(6) It is a matter of regret that several field sections remained unsurveyed which will have to be completed before the standard maps in which they fall can be published.

Cost of surveys.

"(7) The cost of the work can only be approximately stated and, for the reasons above given, is considerably in excess of last year.

"It is estimated the total cost will amount to Rs. 1,14,702 and per square mile of 4-inch survey to Rs. 432, while that of the 2-inch survey will be Rs. 219 per square mile. This includes value of three elephants purchased, namely, Rs. 3,300; deducting this, the cost of the 4-inch will be reduced to Rs. 420."

2.—*Working Plans.*

Report of previous season's work completed.

19. Working plans for the Kôn-Bilin, Kadin-Bilin, and Môkka reserves (the field work of last year) were completed during the rains by Mr. Aplin, but definite orders have not yet been passed upon them.

No field work carried out.

20. No field work took place this year; the state of the district alone would have prevented it, but printed maps were not available and it was decided to await their receipt, as having to prepare and use tracings adds materially to the expense as well as delays the work.

3.—*Annual Plans of Operations.*

Annual plans of operations.

21. These have been fairly worked up to by Divisional Officers; the extraction of timber from Rangoon, Prome, and Toungoo was lower than estimated in consequence of want of rain.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

1.—*Establishment.*

Cost of establishments.

22. The scale of permanent sanctioned establishment remained the same and cost Rs. 74,035.

The expenditure upon the temporary establishments, excluding keep of elephants, was Rs. 22,672.

The following comparative statement gives in detail expenditure for each division:—

Division.	1884-85.		1885-86.			
	Cost of permanent.	Cost of temporary.	Sanctioned permanent.	Sanctioned temporary.	Actual cost of permanent.	Actual cost of temporary.
Prome	7,034	2,597	8,817	2,832	7,428	2,402
Tharrawaddy...	14,752	5,652	16,638	8,722	14,323	6,902
Rangoon	9,208	4,150	10,950	5,616	9,119	3,708
Toungoo	7,139	2,491	9,778	3,486	7,410	2,630
Shwegyin	4,378	1,448	5,157	3,192	4,201	1,957
Western	4,646	2,885	5,172	2,784	4,782	2,346
Agency	26,530	12,307	27,210	18,526	26,777	11,577
Total ...	73,687	31,530	83,722	40,158	74,035	31,517

2.—*General Protection and Breaches of Forest Law.*

Prosecutions for breaches of rules.

23. One hundred and thirty-seven cases, involving 208 persons, were instituted during the year and convictions obtained in 110 cases, and 141 individuals were punished. Compared with last year there is an increase of 21 cases, while the percentage of convictions is less by 7 per cent. In six cases against 20 men the men were discovered by the ranger boiling cutch without licenses; the offence was reported to a Native

Magistrate, who issued summonses. When the case came on for hearing the offenders produced licenses obtained after the discovery by the ranger, but before the issue of the summonses, and upon these grounds were acquitted.

Fifteen cases of boiling cutch without licenses were reversed upon appeal by the Deputy Commissioner, Thayetmyo, upon the grounds that the defendants had only acted upon an order granted by mistake by the Assistant Commissioner.

In the Prome and Tharrawaddy divisions the prosecutions were chiefly for boiling cutch without licenses; the very high rate ruling for this commodity, no doubt, was an incentive. In the other divisions no serious breaches of rules were reported, and the cases prosecuted were chiefly for felling wood without licenses.

Encroachment upon reserves.

24. One case of encroachment upon reserves by the Karens of Myat Tha Dun Tè in the Tharrawaddy division was reported. These men cut their taungyas outside their limits in the reserve.

It was deemed sufficient they should be admonished by the Deputy Commissioner and no prosecution was instituted.

Cases compounded under section 66 of Act.

25. The following statement gives the number of cases compounded by Divisional Officers under section 66 of the Act, with the amounts accepted. The villagers at the foot of and in the hills are only too glad (when caught *in flagrante delicto*) to avail themselves of the opportunity of compounding breaches of the rules, instead of having to attend a Magistrate's Court some days' journey from their residences.

Boiling cutch without licenses is the principal item, and the fine inflicted was, as a rule, only an extra license fee, *i.e.*, Rs. 20 per cauldron:—

Division.	Boiling cutch without licenses.		Unauthorized felling, &c., of teak and reserved trees.		Felling, &c., unreserved woods without licenses.		All other offences.		Total.		Amount realized.
	Number of cases.	Number of men.	Number of cases.	Number of men.	Number of cases.	Number of men.	Number of cases.	Number of men.	Number of cases.	Number of men.	Rs. A. P.
Prome ...	20	88	5	45	1	5	2	9	28	142	2,474 4 0
Tharrawaddy ...	12	12	8	45	2	27	2	14	19	98	1,277 0 0
Rangoon ...	...	...	1	1	...	...	2	3	3	4	110 6 4
Toungoo ...	...	...	2	7	...	...	1	4	3	11	34 0 0
Total ...	32	95	11	98	3	32	7	30	53	255	3,895 10 4

Under Rule 44 sums amounting to Rs. 307 were awarded to informers.

3.—*Forest Fires.*

General result of fire-protective measures.

26. In those divisions of this circle which have been overrun with rebels, as might be expected, fire-protective measures have failed. Unfortunately Tharrawaddy and Prome divisions were among these, and reserves which have been protected since 1873 and 1876, as well as plantations protected since their formation, have been wilfully fired and but a small percentage has escaped. The damage sustained can only be ascertained later on. Toungoo division has been very successful, having had no fires at all, and the Rangoon division has only burnt 149·5 acres.

Results in Prome division.

27. In the Prome division it was attempted to protect 5,735 acres of the Chaungzauk reserve and 75 acres of Prome plantation. Of this 4,535 acres, including 316 acres of plantations, have been burnt through. The Chaungzauk reserve (like many others

in the Tharrawaddy division) was chosen as headquarters by a band of dacoits, the fire-path watchers deserted, and no assistance could be obtained from the frightened villagers. Rupees 516-1-0 were expended.

Results in Tharrawaddy division.

28. The total area fire-traced in the Tharrawaddy division was 44,688 acres (an increase of 4,595 upon last year), and of this only 14,857 acres have escaped being burnt. The expenditure incurred was Rs. 5,466.

The work was scattered over 12 different blocks, and nine of these were fired by dacoits, namely :—

	Area traced.	Area burnt.
Kangyi	4,896 ...	4,896
Gwèdauksan	233	233
Myaung-Minhla	819 ...	819
Minhla-Môkka	3,000 ...	3,000
Môkka-Bilin	20,980 ...	17,480
Nyanlè	5,340 ...	900
Bawbin	814 ...	500
Bwet	2,886 ...	187
Thônze Kôn-Bilin	2,180 ...	9

The Karens of Panhlè Tè extinguished the fires in the Môkka-Bilin reserve, or the whole tract would have gone, thereby saving a considerable area of plantation ; and the Karens did the same in the Thônzè Kôn-Bilin block, and managed to save all but nine acres, which included no plantations. The watchers and forest staff put out the fires in Bwet reserve after traversing 187 acres, of which 49 are taungya plantations of 1877, 1878, 1880, 1881, and 1882.

Of the 2,000 acres in the Gwèdaukkwin reserve, fire-traced for the first time this year to protect the mixed cutch and teak taungyas, only 303 acres of last and previous year's plantations escaped. The origin of the principal fire is unknown and, evidently, no effort was made to extinguish it.

Better success attended the other newly traced area in Kyaukkyidaung reserve and only 109 acres, including 19 of plantations, were burnt.

It has not been possible to state the total acreage of plantations traversed by the fires, as up to the date of writing the report the division was not sufficiently quiet to allow of an officer's travelling in the forests unattended by a large guard.

Results in Rangoon division.

29. Two fires occurred in the areas fire-traced in the Rangoon division. The origin of the one in Magayi reserve, which traversed 100 acres of the 1872 plantations and 38 acres of reserve, is unknown ; it originated close to the Kimpadi road, and had it not been for the energy displayed by the ranger much more damage would have been sustained. A small fire, extending over 11½ acres, took place in the Kyetpyugan reserve. During a high wind the sparks from an outside jungle-fire were blown over the trace ; the watchers, with the prompt assistance of the neighbouring Shan villagers, quickly got the fire under. Four-and-a-half acres of the 1884 ya plantations were burnt through and many of the young plants killed. The blanks will be filled up again this rains.

The tract in the South Zamayi reserve at Dawè was protected ; no payment has yet been made, but the Karens will receive the usual bonus of Rs. 100. The total area attempted to be protected was 34,829 acres, and the cost will be Rs. 2,403, about one anna per acre protected.

Results in Toungoo division.

30. No fires occurred in the Toungoo division ; the area protected amounted to 26,602 acres, and the cost to Rs. 1,352, or under 10 pies per acre.

Area of unprotected reserves which escaped fires.

31. In addition to the 370 square miles naturally protected in the Rangoon division, nearly the whole of the Thandaung reserve, in the Toungoo division, was unburnt, owing to no soldiers having been sent up to the hill station.

Attempt to prevent ingress of fire into Saing reserve by the promise of rewards to villagers unsuccessful.

32. It was endeavoured to protect the greater part of the Saing reserve (101 square miles) by the promise of rewards to neighbouring villagers if they extinguished jungle fire, or prevented its ingress into the reserve. The endeavour met with no success ; in the other divisions no attempt could be made this year.

4.—Grazing.

Receipts for grazing in reserves.

33. In different reserves in the Tharrawaddy and Rangoon division Rs. 249 were realized as grazing fees for 572 head of cattle.

5 and 6.—Reproduction by Natural and Artificial means.

Regular plantations increased.

34. The area of teak plantations at Magayi, in the Rangoon division, was increased by 21 acres at a cost of Rs. 267-14-9, or Rs. 12-12-1 per acre. The growth of the seedlings is fair, and at the close of the rains the plantations were completely stocked with an average of 1,057 plants per acre. The work was as usual carried out by Shans.

Thirty-two acres were added to the Kyetpyugan teak plantations and contain an average of 1,085 seedlings per acre. The young plants are reported healthy and the cost amounted to Rs. 378-11-6, or Rs. 11-13-4 per acre.

Area of new taungya plantations.

35. The area of taungya plantations has been estimated to be 1,705 acres, or deducting 77 acres poorly stocked, 1,628 acres, an increase of 201 acres upon last year. Of this 1,368 acres were planted up with teak alone and 260 with teak and cutch mixed. The average number of plants per acre is 1,013, an exceedingly high one; and in all probablity, when the plantations are accurately surveyed, it will be found the area, particularly in the Tharrawaddy division, has been underestimated.

Prome division taungya plantations.

36. In the Chaungzauk reserve, in the Prome division, 54 men planted up 125 acres, of which 40 are pure teak and contained an average of 1,005 seedlings per acre, costing Rs. 315-2-3, or Rs. 7-14-1 per acre; the balance was planted up with teak and cutch (two rows of the first to one of the last). The result at the close of the season was 815 seedlings per acre and the total cost Rs. 907-14-3, or Rs. 10-10-11 per acre.

Tharrawaddy division taungya plantations.

37. These plantations are scattered over 10 reserves and the area is approximated at 1,169 acres. Taken altogether they are a great success. In the Kyaukkyidaung and Gwedaukkwin reserves the plantations, 175 acres in extent, cost Rs. 1,258-2-0, or Rs. 7-3-0 per acre; they contain 632 seedlings to the acre, being about an equal mixture of cutch and teak.

The plantations in the other reserves are all pure teak and are estimated to have 1,194 seedlings per acre, or an average of only 16 failures per acre. There is no doubt the area is in excess of the estimate. The total cost is Rs. 14,644-8-6 or Rs. 14-11-9 per acre.

This year again a number of teak trees has been damaged or destroyed in the taungyas. It displays a want of supervision on the part of the subordinates; but, on the other hand, cultivators object to 'yas' of an irregular size, which they cannot completely overlook from one spot; and the intimation, that the order to leave the jungle uncut for some distance round standing teak was strictly to be adhered to, has resulted in reducing the number of taungya-cutters for 1886-87 from 356 to 177.

Rangoon division taungya plantations.

38. These have been carried out in three different parts of the Zamayi reserve and the total area attempted is estimated at 204 acres. At Dawè 139 acres were cleared, but only 74 acres of this can be deemed moderately successful, having an average of 307 plants per acre, which cost Rs. 419-11-2, or Rs. 5-10-9 per acre. The remainder of this area contains only 150 seedlings to the acre and, inclusive of teak seed, cost Rs. 193-1-6, or slightly under Rs. 3 per acre, and has not been included in Form 50A.

At Sinswè 15 acres were planted up; the seedlings are reported to be well grown; the area is stocked with 865 plants to the acre; and the cost amounted to Rs. 160-4-9, or Rs. 10-11-0 per acre. This is the first attempt in this place and the results are very satisfactory.

The third site, about 50 acres, is at the source of the Zamayi river and was planted up by the Karens who encroached upon the reserve (*vide* paragraph 57 of

last year's report, as a punishment. The Department supplied the teak seed at a cost of Rs. 62-4-6 and the results are poor.

Toungoo division taungya plantations.

39. One hundred and seventy-two acres were planted up in four different reserves; the results are generally good; the total cost incurred was Rs. 1,857-6-3, or Rs. 10-12-9 per acre; and the average number of seedlings per acre amounted to 789. The cost, however, of nine acres in the Pyunchaung reserve Rs. 172, or Rs. 19-1-9 per acre, is excessive and not at all commensurate with the results; and this year no extension of these plantations will be undertaken in this reserve.

A small patch of 16 acres in the Yènè reserve, where the bamboo had died, was dibbled over, and the ground is fairly covered with teak seedlings. The cost was Rs. 98.

Shwegyin division taungya plantations.

40. A commencement was made this year in the Kyôntaung reserve and 12 acres were cleared. The result is failure, owing to sickness among the cultivators and the rats in the plantations. The expenditure incurred was Rs. 30.

7.—*Cutting Creepers, Weeding, and Thinning.*

Weeding, &c., of old taungya plantations.

41. The following statement shows the weeding, &c., of old taungya plantations in the different divisions:—

Division.	Reserve.	Year of formation.	Area in acres.	Cost. Rs. A. P.	Cost per acre.	Remarks.
Prome ...	Chaungzauk ...	1883	243	394 0 0		
		1884	166	256 0 0		
			409	650 0 0	1 9 5	Twice weeded.
Tharrawaddy	Gwedaukkwin ...	1883	91	228 8 8		
		1884	237	414 3 5		
	Kyaukkyidaung ...	1883	33	82 0 0		
		1884	93	186 3 6		
	Pazingyè ...	1884	12	23 2 3		
	Nyanlè ...	1883	18	44 4 0		
		1884	117	234 12 0		
	Gwedauksan ...	1883	17	42 12 6		
	Bawbin ...	1884	56	112 0 6		
	Kangyi ...	1883	44	110 15 0		
		1884	24	48 9 3		
	Minhla myaung ...	1883	28	70 8 6		
		1884	40	100 11 3		
	Môkka-Minhla ...	1883	213	533 0 6		
		1884	138	345 10 3		
	Môkka-Bilin ...	1883	245	606 9 0		
		1884	311	780 12 0		
	Thôuzè Kôn-Bilin	1883	117	232 8 0		
		1884	65	160 3 0		
			1,899	4,307 0 2	2 4 3	
Toungoo	Pyunchaung ...	1884	21	43 0 0		
	East Swa ...	1883	19	46 0 0		
		1884	29	70 0 0		
	Yonè ...	1883	18	36 0 0		
		1884	16	37 8 0		
	Bôndaung ...	1883	17	34 0 0		
		1884	7	8 0 0		
	Kabaung ...	1883	4	8 0 0		
		1884	3	6 0 0		
			133	288 8 0	2 2 8	

Prome plantation thinned.

42. This plantation was thinned by the Divisional Officer and 810 trees taken out. The cost of the work was Rs. 733-2-0. It is hoped the sale of the trees will cover the cost of the work; to the close of the year three trees had been sold for Rs. 11.

Sowings in flowered bamboos weeded in Tharrawaddy division.

43. The plants growing in Bwet of 1884 were cleared at a cost of Rs. 211-4-0, or Rs. 4-3-7 per acre; those in Pazingyè at a cost of Rs. 428-2-0, or Rs. 2-13-0 per acre. In weeding the sowings of 1883 in Kadinsauk Rs 293-5-6, or 0-15-7 per acre, were expended; those of Pazingyè cost Rs. 410-9-6, or Rs. 3-4-6 per acre, and those of Nyanlè Rs. 302-5-6, or Rs. 1-0-1.

In cutting creepers in the Bwet, Nyanlè, and Bawbin reserves an outlay of Rs. 104-13-0 was incurred.

Teak plantations in Magayi and Kyetpyugan cleared of creepers, &c.

44. One thousand and forty-one acres of old plantations were freed from creepers and dominant trees of inferior species at a cost of Rs. 414-5-11, or Rs 0-6-4 per acre. Rupees 342-7-8 were expended in filling up blanks and weeding 839½ acres of the younger plantations. Similar work was executed at Kyetpyugan; the younger plantations were weeded at a cost of Rs. 184-1-0, and older ones cleared of creepers and soft woods at a cost of Rs. 333-5-3.

8.—*Experiments and Exotics.*

Mahogany.

45. The two plants in the Prome plantation are dead and only two remain in Chaungzauk, six having been killed by insects. Thirty-five fresh seedlings have been raised this year and will be planted out during the rains.

The plants at Kywemakaing are nearly all dead. At Tharrawaddy 94 seedlings of last year are living and 530 have been raised this year,

The number of young trees at Palôn has decreased to 26 and do not promise a very encouraging future.

Ficus elastica and other species.

46. The few plants at Magayi are thriving and those in the Tharrawaddy garden slowly progressing.

Ceara rubber.

47. This plant flourishes at Tharrawaddy and also at Magayi; at the latter two of the trees have seeded and the seeds will be put out in the coming rains.

Chevanessia esculenta.

48. Five hundred and fifty-two plants are reported alive at Magayi, of which 60 are bearing fruit.

Vanilla.

49. The number of plants has been increased to 638; the seven pods noted in last year's report rotted away, cause unknown; this year there are 15.

Morus multicaulis.

50. The slips taken last year were planted out in two yas and succeeded. The villagers who have been feeding their worms with the leaves affirm this food has not affected either the outturn or quality of the silk.

Plantations at Thandaung.

51. The existing cinchona, coffee, and tea plantations were cleared of overgrowth twice during the year, at the suggestion of the military authorities, at a cost of Rs. 548-13-0. A further sum of Rs. 413-3-3 was incurred in weeding and watering nurseries, &c. The nurseries are full of seedlings for which there is no demand. Now that it has been decided not to make Thandaung a sanitarium for troops, the place should be abandoned, the cinchona sold or made over to private parties; it is not worthwhile expending more money upon the plantations.

Tharrawaddy forest garden.

52. The following exotics are growing in the garden:—

Eucalyptus	4
Tristania conferta	7
Pomaderris elliptica	1
Ficus elastica	20
Vanilla	7
Pithecolobium	214
Mahogany	121
Ceara rubber	345
Divi-divi, about	20,000

The expenditure during the year amounted to—

	Rs.	A.	P.
AVII*a*.—Road metal	75	0	0
IX*c*.—Labour	625	0	8
Manure	18	12	0
Sundries	28	14	0
Total ...	747	10	8

9.—*Communications and Buildings.*

(*a*).—*Roads and Bridges.*

Kimpadi road.

53. The balance of the collected metal was spread at a cost of Rs. 234-10-0.

Hlegu bridge.

54. A small bridge was erected, at a cost of Rs. 98-8-0, to connect the Hlègu revenue station with the main road.

(*b*).—*Clearing of Streams.*

Obstructions removed in the Tharrawaddy and Toungoo divisions.

55. Minor obstructions in the following streams, Tharrawaddy division, were removed at a cost of—

	Rs.	A.	P.
Minbu	150	0	0
Bilin	2	0	0
Gamôn	24	8	0
Taungnyo	422	7	0
Môkka	293	12	0
Total ...	892	11	0

The Kabaung and Saing streams in the Toungoo division were cleared, the former by Government at a cost of Rs. 273, and the latter by the contractors at their own cost.

(*c*).—*Buildings.*

Pyunchaung.

56. To replace the rest-house burnt last year a new one has been built at a cost of Rs. 213-4-0.

Destruction of rest-houses by dacoits.

57. The bungalow at Myitkyo has been completely destroyed by dacoits; nearly all of the rest-houses in the Tharrawaddy division have shared the same fate; but no accurate information can be given in this report.

Repairs to office buildings, &c.

58. Repairs to the Prome Forest Office were completed, Shwegyin bungalow was patched up, and the Tharrawaddy Forest Office and bungalow were being painted and repaired at the close of the year. The bungalow at Pegü was earth-oiled, &c., at a cost of Rs. 215-10-0.

Repairs to rest-houses and guard-houses.

59. In the different divisions minor repairs were executed to the rest-houses at trifling costs. The guard-houses at the Alôn, Botataung, and Pazundaung depôts were repaired or re-built at a cost of Rs. 1,184-10-9.

CHAPTER IV.

Yield and Working.

1.—*Departmental Operations.*

Departmental extraction of teak.

60. The outturn of teak logs and pieces extracted by Government agency from the different divisions during the year amounted to 34,824 logs as follows:—

Division.	Number of logs.	Sold locally.	Despatched to Rangoon or Bassein depôts.	Arrived at Rangoon or Bassein depôts.	Average rate per log paid to contractors.
		No.	No.	No.	Rs. A. P.
Prome	1,131	158	884	819	9 1 8
Tharrawaddy	18,589	3	18,586	18,566	8 10 1
Rangoon	4,116	...	3,954	4,305	12 8 7
Toungoo	6,226	845	5,381	4,048	14 12 10
Shwegyin	1,136	1,136	...	32	6 0 0
Western	258	168	90	129	5 5 9
Total ...	26,401	2,305	23,795	22,899	10 11 10
	Refuse and Paddy-field Teak.				
Prome	1,632	480	...	...	1 1 4
Tharrawaddy	6,791	154	...	...	2 1 1
Total ...	8,423	634	...	...	.....
GRAND TOTAL ...	34,824	2,939	23,795	22,899	.....

Scarcity of rain prevented the extraction of some 7,500 logs from the Toungoo, Prome, and Rangoon divisions.

Extraction by department of woods other than teak.

61. Ninety-three kanyin logs were delivered from the Tharrawaddy division at the Rangoon depôt, costing Rs. 648-12-0. One hundred and twenty-six pyingado logs for sleeper conversion were extracted from the Rangoon division. Fifty-six logs of thitka were brought out from the Toungoo forests and delivered at the local depôt at a cost of Rs. 9-8-4 per log. Two hundred and fifty-nine logs of kanyin were despatched from the Shwegyin division to Rangoon, costing Rs. 10 per ton. To meet local demands at Bassein, the following timber was extracted from the Western division forests :—

102 logs kashit containing 67½
306 logs kanyin containing 200½ } tons, costing Rs. 10 per ton,
105 logs thitto containing 68

and for conversion into sleepers, 3,035 logs pyingado (1,853½ tons) were brought out at a rate of Rs. 12 per ton.

Conversion and disposal of sleepers.

62. Fifty thousand sleepers of pyingado were delivered from the Rangoon division to Madras State Railways at Rs. 2 per sleeper. The cost of conversion, shipping, &c., amounted to Rs. 87,875, leaving a clear profit of Rs. 12,125. For the Northern Bengal State Railway this division furnished also 5,160 sleepers. By the sale of these and scantlings, &c., a net revenue of Rs. 27,129 accrued, giving a total profit of Rs. 39,254 on an outlay of Rs. 1,09,364, or a profit of 36 per cent. upon the pyingado work in this division.

The small balance of sleepers on hand from last year in the Shwegyin division was made over to the Burma State Railway.

The Western division supplied 36,500 sleepers, and at the close of the year these operations had resulted in a revenue of Rs. 64,800 against expenditure of Rs. 48,800.

Work in this division was brought to a standstill by dacoits and the contractors have suffered considerable pecuniary loss.

Advances outstanding against contractors.

63. The year closed with a sum of Rs. 54,305 outstanding against contractors, or slightly in excess of last year. The outstandings in the Prome division, Rs. 8,565-12-0, are covered by work done, and the same applies to the Toungoo division (Rs. 5,290) and the agency division (Rs. 1,000) respectively. Rupees 4,998 were due by contractors in the Rangoon division, and with the exception of Rs. 226-8-0 (since written off) the amount is well secured by work done. Tharrawaddy division shows Rs. 22,560-3-0 outstanding; of this amount Rs. 14,520 are covered by mortgages or the value of timber neaped; Rs. 3,142 represent the value of three elephants mortgaged, but which have been stolen by dacoits. Of the balance Rs. 4,730 will be recovered, it is believed, in the course of two or three years, and Rs. 341 will have (if ever recovered) to be obtained by institution of civil proceedings. The Western division has reduced the outstandings of last year by Rs. 5,391 to Rs. 11,891. The recoveries would have been much larger if the contractors' work had not been stopped by dacoits. It is hoped that the balance will be nearly recovered during the next official year. The Shwegyin division has a clean balance sheet.

2.—*Removal of Produce by Purchasers.*

(*a*).—*Timber.*

Trees extracted from reserves.

64. Two thousand three hundred and twenty-three cutch trees were sold from reserves in the Prome and Tharrawaddy divisions for Rs. 5,124, and 3,000 pyingado trees from the Rangoon fuel reserves for Rs. 4,500.

Reserved woods worked out outside reserves.

65. The sale of 67½ tons paddy-field teak from the Prome division yielded Rs. 1,253 and six refuse teak logs Rs. 29. Purchasers consumed in the Tharrawaddy division 114 tons of teak and paid Rs. 1,250; 11½ tons of pyinma realized Rs. 179 and nine kanyin logs Rs. 32-10-0. In the Toungoo division only five tons of pyinma and 35 cubic feet of thingan were extracted. The duty upon reserved woods in the Shwegyin division amounted to Rs. 4,057 for which 555 tons of kanyin, 27·3 tons of pyinma, 17·3 tons of thingan, and 3·6 tons of thitka and thitkado were removed. About 41 tons of teak were also sold at Rs. 10 per ton.

The Western division issued permits for 47 tons of woods of the reserved kinds and disposed of 76 tons of refuse teak at Rs. 15 per ton. From the Rangoon divisional forests 212·5 tons of reserved woods were extracted, realizing Rs. 2,105-3-9.

Licenses for unreserved woods

66. The following form shows the number of unreserved trees extracted from the different divisions with the amounts realized:—

Division.	Dugyis and hlwazas.	Yatthits.	Posts.	Poles.	Amount.
					Rs. A. P.
Prome	5,185	8,376	4,361	12,184	14,735 1 3
Tharrawaddy	2,434	2,027	257	1,946	6,250 15 9
Rangoon	13,875	2,438	2,009	...	24,060 4 6
Toungoo	1,321	1,080	797	6,350	2,868 8 8
Shwegyin	5,146	8,246	2,792	125	11,176 0 0
Western	4,167	6,100	9,078	56,897	12,937 0 0
Agency	228	60	...	11,569	8,810 2 2
Total ...	32,306	23,322	19,289	89,071	75,882 10 11

There is a very considerable falling off in number of, and revenue realized upon, woods of the reserved and unreserved kinds; explanation given under financial results.

(*b*).—*Minor Forest Produce.*

Extraction from reserves.

67. The extraction of minor forest produce from reserves yielded Rs. 15,989, as follows :—

Division.	Bamboos.	Grazing.	Wood-oil.	Honey.	Cigar leaves.	Shaw fibre.	Canes, &c.	Thatch grass.	Cutch licenses.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Prome	15	...	...	...	...	...	...	...	...
Tharrawaddy	2,164	88	80	49	150	213	2	42	11,360
Rangoon	1,461	160	...	...	...	70	9	18	...
Toungoo	45	...	6	35	...	12	12	...	...
Total ...	3,685	248	86	84	150	295	23	60	11,360

Unreserved forests.

68. From unreserved forests a revenue of Rs. 57,306 was realized, made up of the following items:—

Division.	Cutch.	Char-coal.	Wood-oil.	Resin.	Thitsi.
	Rs.	Rs.	Rs.	Rs.	Rs.
Prome	40,900	127	48	60	...
Tharrawaddy	12,120	91	68	...	...
Rangoon	20	159	42	...	...
Toungoo	200	43	204	...	470
Shwegyin	...	270	204	...	...
Western	2,180	86	14	...	...
Total ...	55,420	776	580	60	470

In addition 1,027 free licenses to boil cutch were issued by the Deputy Commissioner, Thayetmyo, as a means of relief to cultivators whose crops had failed; this represents a loss of revenue amounting to Rs. 20,540.

3.—Free Grants.

Free grants for religious and useful purposes.

69. Free grants for teak and reserved woods were issued by the Commissioners and Conservator to the following extent :—

By whom issued.	Quantity in tons.					
	Teak.	Pyinma.	Thingan.	Kanyin.	Pyingado.	Thitkado.
Commissioner of Irrawaddy	141	61½	...	108	50	8
Commissioner of Tenasserim	29	98	1	8	...	5½
Conservator of Forests	256	114	1	10	...	5
Total ...	426	273½	2	116	50	13½

4.—Summary of Yield.

Total outturn from all divisions.

70. The following tabular statement shows the total yield from all divisions as nearly as can be estimated :—

Division.	How extracted.	Teak	Other reserved trees.	Unreserved trees.	Posts and poles.	Cutch.	Bamboos.	Charcoal.	Wood-oil and resins	Shaw fibre	Canes.	Cheroot leaves.	Thatch grass.	Honey.
		Tons.	Tons.	Tons.	Tons.	100 Viss.	No.	100 Bkts.	Viss.	100 Viss.	No.	Mille	Bdls.	Viss.
PROME	By Government	2,200	...	...		...	40	...	...	...	...	...	...	...
	By purchasers	69	...	7,505	662	8,180	5,800	13	108	...	...	...	...	...
	Under free grant	52	...	...	...	2,054	...	...	...	...	...	...	...	...
THARRAWADDY	By Government	11,496	100	...	.	..	.	...	...	...	...	..	...	...
	By purchasers	114	18	2,673	88	40,661	865,450	918	296	205	...	2,994	3,000	245
	Under free grant	111	46	...	...	...	...	...	..	...	...	...	...	...
RANGOON	By Government	3,558	...	75	...	...	...	...	...	...	...	...	...	...
	By purchasers	31	212	9,785	80	5	653,400	153	84	137	400	...	400	...
	Under free grant	16	21	...	...	...	...	...	...	...	...	...	...	...
TOUNGOO	By Government	5,603	45	...		..	...	...	...	...	...	...	...	...
	By purchasers	...	5	1,200	37	50	18,150	40	1,378	12	120	...	...	150
	Under free grant	9	32	...	50	...	...	...	..	...	...	...	...	...
SHWEGYIN	By Government	852	400	...	...	...	...	...	...	...	...	...	...	...
	By purchasers	41	603	5,035	111	...	...	229	510	...	...	...	...	...
	Under free grant	...	...	.	...	...	...	...	...	...	...	...	...	...
WESTERN	By Government	94	268	2,004	...	...	...	...	..	...	...	...	...	...
	By purchasers	76	47	6,160	2,638	565	...	73	14	...	...	...	...	...
	Under free grant	208	176	20	..	...	...	...	...	...	...	...	...	...
	Total ...	24,530	1,973	34,457	3,666	51,515	1,542,840	1,426	2,390	354	520	2,994	3,400	395

5.—*Drift Operations.*

Collection of drift.

71. The number of drift logs collected during the year is far in excess of the previous one and consisted mainly of timber from Upper Burma. The collections, division by division, are shown below :—

Division.	Balance, 1884-85.	Collected during 1885-86.	Returned to claimants.	Sold.	Balance.
	Rs.	Rs.	Rs.	Rs.	Rs.
Prome	14	267	115	101	65
Toungoo	8	13,657	12,557	46	117*
Shwegyin	709	5,798	5,240	581	673*
Western	75	208	41	118	119
Rangoon	...	682	622	54	...
Agency	113	829	728	208	16
Total ...	919	21,436	19,304	1,058	990

* Nine hundred and forty-five logs drifted away from Toungoo during the very high floods and 68 from the Myitkyo depôt.

6.—*Girdling.*

Girdling operations.

72. The number of teak trees girdled was 15,576; it was proposed to girdle 15,700. In the Pegu forests coolies could not be obtained to carry out the work of girdling 100 trees. The subjoined statement gives particulars :—

Division.	Forest or reserve.	Number proposed to be girdled.	Number girdled.
	Inside reserves.		
Tharrawaddy	Thônzè	1,000	1,004
	Môkka	200	202
Rangoon ...	Zamayi	500	500
	Total ...	1,700	1,706
	Outside reserves.		
Prome	Mindôn	1,500	1,500
	South Nawin	500	500
Tharrawaddy	Shwele	1,100	1,100
	Taungnyo	2,250	2,259
	Bawbin	750	750
	Kôn-Bilin	900	861
Rangoon ...	Pegu	100	...
Toungoo	Sabyin and Lônyan	3,000	2,800
	Myohla	900	1,100
	Swa	1,500	1,500
	Kabaung	1,500	1,500
	Total ...	14,000	13,870
	GRAND TOTAL ...	15,700	15,576

In addition 300 pyinma trees were girdled in the Paunglin forests of the Rangoon division.

The Conservator inspected some of this work and Divisional Officers generally have revised it. The usual details are given in Appendix D.

7.—Disposals and Sale Depôts.

Local sales

73. The sale of 844 small teak logs and posts from the Prome depôt realized Rs. 6,250-8-0, and along the railway line 157 paddy-field logs were disposed of from the small depôts in the Tharrawaddy division for Rs. 926-5-0.

For local consumption 906 small teak logs were purchased from the Toungoo depôt for Rs. 17,970-6-0 and eight other logs were sold for Rs. 77. For conversion at Shwegyin 568 teak logs were disposed of at about Rs. 16 per ton. The sales in the Western division were as follows :—

446 teak logs sold at Bassein depôt realized Rs. 7,084, but Rs. 3,377 of this remained outstanding at the close of the year.

116 teak refuse logs sold at different places for Rs. 1,088.

225 logs of kanyin and kashit sold by auction at Bassein for Rs. 3,099, or about Rs. 18-5-0 per ton.

The Jail Department, Bassein, took over 468 logs of kanyin, kashit, and thitto; the account was not settled by the end of the year.

Rangoon Agency and Depôt.

Arrivals at Rangoon depôt.

74. The arrivals from the different divisions were as follows :—

Division.	Number of logs.		
	Teak.	Other woods.	Total.
Prome	819	...	819
Tharrawaddy	18,566	94	18,660
Rangoon	4,305	7,146 *(a)*	11,451
Toungoo	4,048	1	4,049
Shwegyin	32	259	291
Western	39	...	39
Agency	...	4,749 *(b)*	4,749
Total ...	22,809	12,249	35,058

(a) chiefly pyingado scantlings from Taikkyi. | *(b)* sleepers.

This represents, approximately, 20,144 tons teak and 744 tons of wood of other kinds.

Sales from Rangoon depôt.

75. The sales by auction and upon indent were as follows :—

	No.	Amount realized.
	Teak.	Rs.
Auction sales	21,757	5,97,113
Indent sales	8,518	4,78,837
Other woods, sleepers, &c. ...	12,352	19,475
Drift timber	373	10,319
Drift timber returned to claimants	1,356	4,652
Total		11,10,396

Quantity sold and average rate.

76. The quantity of teak sold was 24,867 tons, representing an average rate of Rs. 43-4-0 per ton. Comparing this with last year there is an increase of Rs. 6-2-6 per ton, solely due to the larger quantity disposed of upon indent.

Balance at depôt and approximate value.

77. The balance of teak on the 31st March amounted to 20,809 tons, consisting of 803 I class, 24,065 II class logs, and 54 sleepers. Of other kinds of woods about 111 tons were on hand.

The value of this stock may be taken at Rs. 30 per ton, or about Rs. 6,25,000.

Balance detailed for each division.

78. The balance arranged according to divisions is as follows :—

Division.	Teak.			Woods of other kinds.	
	Logs.	Sleepers.	Drift.	Logs.	Drift.
	No.	No.	No.	No.	No.
Prome	427	...	...	...	...
Tharrawaddy	18,059	...	...	...	...
Rangoon	6,269	.	3	...	...
Toungoo	49	...	...	...	...
Shwegyin	18	...	...	99	...
Agency	...	54	43	...	1
Total ...	24,822	54	46	99	1

CHAPTER V.

Financial Results.

Financial results.

79. The transactions of the year under review resulted as follows :—

	Rs.	A.	P.
Revenue	15,54,616	2	10
Expenditure	8,32,437	13	4
Surplus ...	7,22,178	5	6

This result is very satisfactory, considering the teak market in India has been very flat, and that prices at home have been very low and sales very restricted.

Comparison with previous years.

80. The usual comparison with the previous three years is here given—

	Receipts. Rs.	Expenditure. Rs.	Surplus. Rs.
1882-83 ...	16,26,331	8,38,233	7,88,098
1883-84 ...	18,51,228	8,03,952	10,47,276
1884-85 ...	12,71,328	9,04,119	3,67,209
1885-86 ...	15,54,616	8,32,438	7,22,178

Financial results arranged divisionally.

81. The revenue and expenditure for each division is seen from the following statement :—

Division.	Revenue.			Expenditure.	Surplus.
	Local collections.	Agency collections.	Total.		
	Rs.	Rs.	Rs.	Rs.	Rs.
Prome	68,130	1,69,102	2,37,232	61,240	1,75,992
Tharrawaddy	42,109	4,27,133	4,69,242	2,37,109	2,32,133
Rangoon	1,72,047	1,35,505	3,07,552	2,25,351	82,201
Toungoo	55,657	3,04,362	3,60,019	1,85,794	1,74,225
Shwegyin	49,923	19,397	69,320	45,702	23,618
Western	41,461	52,774	94,235	67,193	27,042
Agency	...	17,015	17,015	10,049	6,966
Total ...	4,29,327	11,25,288	15,54,615	8,32,438	7,22,177

Revenue.

Departmental timber extraction.

82. The revenue under I shows an increase of Rs. 3,26,651 upon last year, a consequence of a larger quantity of timber having been sold upon indent.

83. There is a decrease of Rs. 78,963 upon forest produce worked out by consumers; this is chiefly attributable to the state of the province during the latter part of the year. All the divisions show a falling off except Rangoon, and in this division the revenue was obtained upon pyingado extracted for sleeper conversion. Included in the above is the cutch revenue, which shows a decrease of about Rs. 19,500, and which would have been still greater if Rs. 11,360 had not been realized from reserves in the Tharrawaddy division.

Produce removed by consumers.

84. The revenue upon drift and waif wood exceeds that of the previous year by Rs. 32,255. The increase is due to the number of logs which were set adrift in Upper Burma in the Sittang river and collected at Toungoo or Myitkyo.

Drift operations.

85. The increase of Rs. 3,346 under V was derived from the sums accepted as compensation by Divisional Officers under section 66 of the Forest Act.

Miscellaneous.

EXPENDITURE.

86. A reduction of Rs. 83,803 has to be recorded under this head; over 7,500 teak logs were heaped in the different divisions.

Extraction by departmental agency.

87. Expenditure about the same, being cost of temporary establishments.

Extraction by purchasers.

88. An increase of Rs. 24,947, an inevitable consequence upon the much larger number of logs salved in the Sittang.

Drift and waif.

89. No elephants were purchased during the year, which accounts for the greater part of the decrease of Rs. 8,726; less money was also spent upon the purchase of stores.

Live-stock, stores, &c.

90. This heading also shows a decrease of Rs. 5,285; less money was spent upon the Kimpadi road and upon erection of rest-houses.

Communications and buildings.

91. This heading shows a decrease of Rs. 3,533, being saving effected chiefly under working plans and plantations.

Demarcation, &c.

92. This heading shows an increase of Rs. 5,415, chiefly due to refunds to the Bombay Burma Trading Corporation, Limited, for cutch trees in reserves.

Miscellaneous.

93. The pay of superior officers shows an increase of Rs. 4,746; that of subordinates is about the same. Office establishments show an increase of Rs. 612 owing to annual increments.

Salaries.

94. A saving of Rs. 3,744 was effected under this head, chiefly from gazetted officers.

Travelling allowances.

95. The expenditure under contingencies shows a reduction of Rs. 1,318.

Contingencies.

96. Comparison with the two previous years is given in the following summary:—

Summary of receipts and charges.

	Receipts			Charges.			Surplus or deficit.					
	1883-84	1884-85	1885-86	1883-84.	1884-85.	1885-86.	1883-84.		1884-85.		1885-86.	
							Surplus.	Deficit	Surplus.	Deficit.	Surplus.	Deficit.
	Rs.	Rs	Rs	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs	Rs	Rs.
I—Departmental timber operations.	15,95,334	10,19,180	13,79,427	6,34,089	7,14,375	6,55,706	9,61,245	..	3,04,755	..	7,23,721	...
II—Other revenue.	2,55,891	2,52,198	1,75,189	60 670	72,615	64,381	1,95,224		1,79,583	...	1,10,808	
III.—Formation and improvements		..		1,09,193	1,17,129	1,12,351	...	1,09,193	..	1,17.129		1,12,351
Total .	18,51.228	12,71,328	15,54,616	8,03,952	9,04,119	8,32,438	10,47,276	.	3,67,209	...	7,22,178	...

GENERAL.

97. No improvement has taken place during the year in the teak markets at Home and in India, and unusually large stocks were on hand at the close of the year. The local market for other woods than teak has been very flat, and much less timber has been extracted for sale, particularly during the latter part of the year.

Timber market.

98. The teak timber extracted from the Ningyan forests, Upper Burma, and floated down the Sittang reached the large total of logs 61,265, the greatest quantity ever extracted in one season.

Teak imports.

The imports by the Irrawaddy river are shown in the following statement:—

Timber.	Logs.	Squares.	Planks.	Boat-hulls.	Wheel-pieces.	Oar-pieces.	Total.
Teak	12,898	784	944	805	61,685	415	76,526
Padauk	485	...	...	...	...	..	485
In	...	...	1,000	...	...	...	1,000
Pyingado	82	...	...	...	...	...	82
Various	244	...	1,150	...	...	...	1,894

The decrease on the imports of teak by the Irrawaddy is owing to the Expedition, which took place during the floating season.

99. The exports of teak from the port of Rangoon show an increase of 11,240 tons, while the difference in value is only shown as Rs. 5,23,666. Further details regarding other produce imported into and exported from Rangoon are given in Appendix C.

Exports.

100. No additional elephants were purchased during the year; one dragging animal died, as also three baggage ones, leaving a balance of 35 full-grown elephants and one calf. The average monthly cost per animal amounted to Rs. 35-12-1.

Elephants.

101. Collections were made in all divisions of forest products for the Colonial Exhibition at London, upon which Rs. 373-8-0 were spent. Eight bags of teak seed were supplied to the Deputy Conservator of Forests, Chittagong.

Supplies for Exhibition, &c.

102. The launch *Forester* was employed from the 17th April until 31st June 1885 by the Military authorities, and on the 19th November 1885 was despatched to Upper Burma, where she has since remained. Her absence during the busy season was a source of inconvenience and pecuniary loss to the department.

Steam-launch *Forester*.

103. The Officiating Conservator was absent on tour for 168 days during the year. All the divisional offices were examined. He visited the plantations and other works of reproduction in the Prome, Tharrawaddy, Rangoon, and Toungoo divisions; inspected the girdling in the Prome, Tharrawaddy, and Toungoo divisions; the fire-tracing in Prome and Toungoo; and examined the state of the boundaries of different reserves in Rangoon, Tharrawaddy, Prome, and Toungoo; some of the revenue stations were also visited by him.

Conservator's tours.

104. As noted in last year's report, Mr. Pickard had to go home on sick leave for one year from the 4th April 1885, and Mr. Nisbet availed himself of two years' furlough from the 30th January 1886. Sub-Assistant Mr. Buchanan, at the close of the working season 1884-85, was sent to the forest school at Dehra Dun. Sub-Assistant Mr. Ingram was deputed to Mandalay in February last to undertake collection, &c., of Government timber. Maung Shwe Gôn, probationary Sub-Assistant, was removed from the service for misconduct and neglect of work. With this exception the Conserva-

Gazetted officers.

tor is pleased to record his satisfaction with the work done by gazetted officers. Ranger Maung Kalè was, for continuous good service, promoted to a probationary Sub-Assistant Conservatorship.

Apprentices.

105. Maung Kan Hein, apprentice, completed the course at Dehra Dun and, upon return to the circle with a Forester's certificate, was appointed officiating Ranger, VI grade.

Forest and depôt establishments.

106. Maung Ne Wun, *ex*-Ranger, who absconded in 1883, returned and gave himself up to the police. He was tried for criminal breach of trust and sentenced to six years' rigorous imprisonment. Ranger Maung Bwa was removed from the department for general inefficiency and neglect of duty. Rangers Maung Kalè (promoted, *vide* paragraph 104) and Maung Yaing have worked well and satisfactorily, as also has Depôt Overseer Shwe Maung O.

A forester in the Toungoo division was prosecuted for criminal misappropriation and sentenced to a fine of Rs. 100, or four months' rigorous imprisonment.

Office and Agency.

107. Mr. Buchanan, Superintendent of Conservator's Office, and Mr. Allmark, Depôt and Agency Officer, have merited the thanks of the Conservator, and generally the work of office establishments in the circle has been satisfactory.

RANGOON:
The 30th June 1886.

E. P. POPERT,
Officiating Conservator of Forests, Pegu Circle.

APPENDICES.

ANNUAL FORM No. 49 [PRESCRIBED].—*Area of Reserved Forests in the Tenasserim and Pegu Circles for the year 1885-86.*

Division.	Range.	Civil district or territory	Name of forest	Area on 1st April 1885. Acres.	Area on 1st April 1885. Equivalent in square miles.	Added during the year Acres.	Excluded or transferred to other heads. Acres.	Area on 31st March 1886. Acres	Area on 31st March 1886. Equivalent in square miles.	No. and date of notification of addition or transfer.	Remarks
West Salween.	West Salween Range.	Salween ...	Wamu chaung	1,920	3	...	...	1,920	3		
			Sinzwè	8,960	14	...	..	8,960	14		
			Kahilu	9,600	15	...	...	9,600	15		
			Minnannwe	3,840	6	...	...	3,840	6		
			Mèwaing	7,360	12	...	...	7,360	12		
			Upper Methalauk... ...	8,960	14	...	...	8,960	14		
			Lower Do.	3,840	6	..	...	3,840	6		
	Ditto	Shwegun	Bilakatkyi	8,320	13	...	...	8,320	13		
			Ônkangyi	8,320	13	...	...	8,320	13		
	Ditto	Amherst	Tagalaung	5,120	8	...	...	5,120	8		
	Ditto	Salween	Pa chaung	25,600	40	...	...	25,600	40		
			Dagwin	6,400	10	...	...	6,400	10		
East Salween.	East Salween Range.	Amherst ...	Kamawkala	5,760	9	...	...	5,760	9		
			East Mèpalè	38,400	60	...	...	38,400	60		
			Mèpale	25,600	40	...	...	25,600	40		
			Metkanè	17,280	27	...	..	17,280	27		
			Kyaukket	12,160	19	...	...	12,160	19		
			Mègala	6,400	10	...	...	6,400	10		
			Winsaw...	6,400	10	..	...	6,400	10		
			Mithawè	12,160	19	...	...	12,160	19		
			South Myawadi	150		...	...	150	...		
			Ônkaraing	33,920	53	...	...	33,920	53		
			Gawlè	37,120	58	...	...	37,120	58		
			Balèdo	1,600	2	...	..	1,600	2		
Ataran ...	Ataran Range.	Amherst	Dali	7,680	12	...	...	7,680	12		
			Pakabo	20,480	32	...	...	20,480	32		
			Natchaung	5,760	9	...	...	5 760	9		
			Gôngyi	27,520	43	...	...	27,520	43		
			Ma-u	8,960	14	...	...	8,960	14		
			Mègwa	12,160	19	...	...	12,160	19		
			Thingannyinaung ...	5,760	9	...	...	5,760	9		
			Kyunchaung	10,880	17	...	...	10,880	17		
South Tenasserim.	Tavoy Range.	Tavoy	Mintha	64,000	100	...	...	64,000	100		
			Kaleinaung	...	...	294,400	...	294,400	460	No. 63F., dated 17th October 1885.	Includes 12 square miles of Karen area.
			TOTAL TENASSERIM CIRCLE...	458,390	716	294,400	...	752,790	1,176		
	Myedè Range.	Thayetmyo district ...	Tindaw	2,880	5	...	...	2,880	5		
			Sasuwa	4,800	7	...	...	4,800	7		
			Thayetmyo, East Yoma ...	81,920	128	...	10,240	71,680	112	No. 65, dated 23rd November 1885.	
	Kama Range.	Ditto ...	Saingdo	1,216	2	...	...	1,216	2		
			Thabala	6,080	9	...	...	6,080	9		
			Mindon Yoma	166,400	260	...	...	166,400	260		
			Ngawet	3,200	5	...	...	3,200	5		
			Total Thayetmyo ...	266,496	416	...	10,240	256,256	400		

Pro	Nawin range.	Prome district ...	Thitkat and Ayodaung ...	2,944	5	...	...	2,944	5		
			Thayetchaung and Nyaungbindet.	4,864	8	...	...	4,864	8		
			Kywèmido	2,442	4	...	...	2,442	4		
			Nabèbyu	3,840	6	...	...	3,840	6		
			Shwelaung and Pwègin ...	13,120	21	...	...	13,120	21		
			Gwegyo	6,720	10	...	...	6,720	10		
			Chaungzauk	9,408	15	...	...	9,408	15		
			Ngalusan	700				700			
			Shwekyundaw	256	2	...	...	256	2		
			Prome plantation ...	73				73			
			Prome East Yoma ...	97,600	152	...	...	97,600	152	.....	Includes Karen area of 43 square miles.
			Tônye fuel reserve ...	12,224	19	...	...	12,224	19		
			Pauktaw do. ...	4,672	7	...	...	4,672	7		
			Sinmizwè do. ...	6,400	10	...	...	6,400	10		
			Total ...	165,263	259	...	...	165,263	259		
			Total Prome ...	431,759	675	...	10,240	421,519	659		
			Karen areas ...	27,520	43	...	...	27,520	43		
			Total area free of taungya prigileges.	404,239	632	...	10,240	393,999	616		
Tharrawaddy.	Shwele range.	Prome district ...	Shwele Yoma	33,600	52	...	...	33,600	52	.....	Includes Karen area of 12 square miles.
			Dawlè	1,800	3	...	...	1,800	3		
			Padetmyaung	4,500	7	...	...	4,500	7		
			Kyaukkyitaung	2,600	4	...	...	2,600	4		
			Bwet	2,900	5	...	...	2,900	5		
			Gwedauk Kwin	10,200	16	...	...	10,200	16		
			Kyibyu	2,200	3	...	...	2,200	3		
			Kadinzauk and Kadinthônzin	3,500	6	...	...	3,500	6		
			Shabaung	2,200	3	...	...	2,200	3		
			Tarôkmaw and Inma ...	24,576	38	...	...	24,576	38	.....	Part in Tharrawaddy district.
	Bawbin range.	Tharrawaddy district...	Taungnyo Yoma	88,320	138	...	...	88,320	138	.....	Includes Karen area of 36 square miles.
			Upper Padinbin	600	1	...	...	600	1		
			Lower Padinbin	200	...	...	...	200	...		
			Tapan	4,260	7	...	...	4,260	7		
			Nyanlè	5,800	9	...	...	5,800	9		
			Kanni	800	1	...	...	800	1		
			Pazingyi	1,300	2	...	...	1,300	2		
			Taungnyomyo	4,780	8	...	...	4,780	8		
			Minbu	83,200	130	...	3,603*	14,003	22		
			Bawbin					65,594	102	.....	Includes Karen area of 35·66 square miles.
			Upper Payagyi	1,000	2	...	296*	704	1		
			Lower Payagyi	600	1	...	293*	307	...		
			Thitcho	1,400	2	1,570*	...	2,970	5		
			Kangyi	3,800	6	1,096*	...	4,896	8		
			Gwedauksan	1,300	2	...	78*	1,222	2		
			Chaungwa	700	1	804*	...	1,504	2		
			Myodwin	38	...	...	...	38			
			Chaungzauk (fuel) ...	3,700	6	...	246*	3,454	5		
			Carried forward ...	289,874	453	3,470	4,516	288,838	450		

* Alterations consequent upon a correct survey.

ANNUAL FORM No. 49 [PRESCRIBED].—*Area of Reserved Forests in the Tenasserim and Pegu Circles for 1885-86*—(concluded).

Division.	Range.	Civil district or territory.	Name of forest.	Area on 1st April 1885. Acres.	Area on 1st April 1885. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other heads. Acres.	Area on 1st March 1886. Acres.	Area on 1st March 1886. Equivalent in square miles.	No. and date of notification of addition or transfer.	Remarks.
THARRAWADDY—(concluded).			Brought forward ...	2,89,874	453	3,470	4,516	288,828	450		
	Gamôn Range.	Tharrawaddy district...	Minhla	89,600	140	...	2,374*	25,453	40	.....	Includes Karen area of 6·43 square miles.
			Gamôn					47,757	75	.....	Includes Karen area of 29·31 square miles.
			Taung					14,016	22	.....	Includes Karen area of 8·43 square miles.
			Taukkyan	4,640	7	...	1,502*	3,138	5		
			Thakolan	960	1	174*	...	1,134	2		
			Chaungngagôn	300	...	50*	...	350	1		
			Satpôk (fuel)	4,700	7	576*	...	5,276	8		
			Sitkwin (do.)	2,700	4	380*	...	3,080	5		
	Bilin Range.	Ditto ...	Môkka	22,406	35	...	...	22,406	35	.....	Includes Karen area of 10·28 square miles.
			Kadin-Bilin	53,363	83	...	...	53,363	83	.....	Includes Karen area of 22·33 square miles.
			Kôn-Bilin	15,987	25	...	...	15,987	25		
			Thômlé	69,734	109	...	...	69,734	109	.....	Includes Karen areas of 14·80 square miles.
			Thindawyo	6,400		151	...	6,551	10		
			Total Tharrawaddy ...	560,664	874	4,801*	8,392*	557,073	870		
			Karen area ...	106,880	167	5,163*	...	112,043	175		
			Total area free of taungya privileges.	453,784	707	—362	8,392	445,030	695		
DIVISION.	Paunglin range.	Hanthawaddy district ..	Kyetpyugan	940	2	...	...	940	2		
	Pagu range	Ditto ...	Kadat	64,000	100	...	...	64,000	100		
	K i n badi Range.	Ditto ..	Magayi	12,800	20	...	...	12,800	20		
	Hlaing Range	Ditto ...	Ôkkan	80,000	125	...	...	80,000	125	.....	Includes Karen area of 15 square miles.
			Hlaing Yoma	59,520	93	...	...	59,520	93		
			Total ..	217,260	340	...	...	217,260	340		
			Fuel reserves.								
	Ditto ...	Ditto ...	Hmawbi	1,846	3	...	...	1,846	3		
			Kyun	8,600	13	...	...	8,600	13		
			Thitpyat	3,100	5	...	...	3,100	5		
			Thabyu	8,000	13	...	...	8,000	13		
			Total ..	21,546	34	...	...	21,546	34		

RANGOON.	Pegu Range.	Pegu district ...	Upper Zamayi ..	1,45,920	228	...	...	1,45,920	228	.....	Includes Karen area of 88·5 square miles.
			Lower Zamayi .	1,12,000	175	...	..	1,12,000	175	.....	Includes Karen area of 18·5 square miles.
			Letpan	10,880	17	...	...	10,880	17		
	Paunglin Range		Paunglin	68,480	107	...	...	68,480	107	.....	Includes Karen area of 7 square miles.
			Total ...	337,280	527	...	.	337,280	527		
			Total Rangoon ..	576,086	901	..	...	576,086	901		
			Karen area .	81,280	127		..	81,280	127		
			Total area free of taungya privileges.	494,806	774	...		494,806	774		
TOUNGOO DIVISION.	Thagaya Range	Toungoo district ...	Yanè .. .	5,800	9	.	...	5,800	9		
			East Swa . .	17,280	27	...	.	17,280	27		
			Kyaukmasin . .	20,480	32	.	...	20,480	32		
			Seing	64,640	101	..	...	64,640	101		
			West Swa . ..	38,400	60	..	..	38,400	60		
			Lônyan .	10 880	17	.	.	10 880	17		
			Sabyin	26 240	41	.	...	26 240	41		
			Gwêthè	33,280	52	...	...	33,280	52		
	Zeyawadi Range.	Ditto ...	Bôndaung .	25,600	40	...	...	25,600	40		
			Kabaung .	220,800	345	...	...	220,800	345	.. ...	Includes Karen area of 65·5 square miles
	Bôamadi Range.	Ditto ...	Pyunchaung	3,400	5	..	...	3,400	5		
			Kanni	280	..	.	...	280	...		
			Gônwè	6,400	10	...	...	6,400	10		
	Kyatha-ung-daung Range.	Ditto ...	Thandaung	12,025	19	...	...	12,025	19		
			Total Toungoo	485,505	758	...	..	485,505	758		
			Karen areas ..	41,920	65	...	...	41,920	65		
			Total area free of taungya privileges	443,585	693	...	...	443,585	693		
SHWEGYIN DIVISION.	Kyaukkyi Range.	Shwegyin district ...	Binbyè	6,400	10	..	...	6,400	10		
	Sittang Range	Ditto ..	Kyundaung	960	1	..	..	960	1		
			Kyundaung extension ...	3,840	6	..	...	3,840	6		
	Bawni Range.	Ditto ...	Tôngan	...	.	20,480	...	20 480	32	No 6F., dated 9th Feby. 1886	
			Upper Kanyinmyaung ..	...	...	8,320	...	8,320	13		
			Lower Kanyinmyaung .	...		28,800	..	28,800	45	No 7F., ditto. No 8F., ditto	
			Total Shwegyin ...	11,200	17	57,600	...	68,800	107		
PEGU CIRCLE—TOTAL.	...	(a) Area free of taungya privileges		1,806,764	2,823	57,238	18,632	1,846,220	2,885		
	...	(b) Karen areas		257,600	402	5,163	...	262,763	410		
	...	(c) Area of *a. b.*		2,065,214	3,225	62,401	18,632	2,108,983	3,295		
TENASSERIM CIRCLE—TOTAL.	..	(a) Area free of taungya privileges		450,710	704	294,400	.	745,110	1,164		
	..	(b) Karen areas		7,680	12	...	...	7,680	12		
	...	(c) Area of *a. b.*		458,390	716	294,400	...	752,790	1,176		
LOWER BURMA—GRAND TOTAL.	...	(a) Area free of taungya privileges		2,257 044	3,527	351,638	17,352	2,591,373	4,049		
	...	(b) Karen areas		266,280	414	5,163	1,280	217,443	422		
	...	(c) Area of *a. b.*		2,523,604	3,941	356,801	18,632	2,861,816	4,471		

* Alterations consequent upon a correct survey.

ANNUAL FORM No 50.—[PRESCRIBED].—*Prosecutions for Breaches of Forest Rules during the year 1885-86.*

Forest Division and Civil district.	Cases pending from 1884-85.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of the year.	Remarks
		Injury to forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.			
								Cases.	Persons.	Cases.	Persons	Cases.	Persons.		
Salween division—															
Amherst district	...	...	6	...	77	83	83	81	145	2	7	83	152	...	Fines to the extent of Rs 1,396 were realized and some teak and other timber confiscated.
South Tenasserim division—															
Tavoy district	...	...	18	...	...	18	18	10	15	8	25	18	40	...	
Mergui district	...	...	3	...	...	3	3	2	2	1	3	3	5	...	
East Salween division—															
Amherst district	1	...	2	...	1	3	4	4	9	...	...	4	9	...	Four cases were compounded, two for Rs. 85 and in the other two the Karens were made to supply teak seed for their taungyas free of cost.
West Salween division—															
Salween district	1	...	...	...	...	...	1	1	1	...	...	1	1	...	Compounded for Rs. 50.
Ataran division—															
Amherst district	...	...	5	...	1	6	6	5	5	1	1	6	6	...	Rs. 51 were realized in fines.
Total Tenasserim Circle ...	2	...	34	.	79	113	115	103	177	12	36	115	213	...	
Prome division—															
Prome district	...	1	30	...	30	61	61	55	63	6	20	61	83	...	
Thayetmyo district	...	...	9	...	25	34	34	28	28	6	22	34	50	...	
Tharrawaddy division—															
Tharrawaddy district	...	...	13	...	1	14	14	11	23	3	5	14	28	...	
Prome district	...	...	12	...	...	12	12	7	9	5	8	12	17	...	
Rangoon division—															
Pegu district	1	...	2	...	...	2	3	1	1	1	1	2	2	1	
Hanthawaddy district	...	...	1	...	...	1	1	1	1	...	1	1	2	...	
Toungoo division—															
Toungoo district...	...	...	1	...	...	1	1	1	1	...	...	1	1	...	
Shwegyin division—															
Shwegyin	...	...	3	...	...	3	3	1	1	2	5	3	6	...	
Western division—															
Myanaung	...	...	5	...	...	5	5	1	2	4	5	5	7	...	
Henzada	...	...	3	...	...	3	3	3	11	...	...	3	11	...	
Bassein	...	...	1	...	...	1	1	1	1	...	...	1	1	...	
Total Pegu Circle ...	1	1	80	...	56	137	138	110	141	27	67	137	208	1	
TOTAL LOWER BURMA ...	3	1	114	...	135	250	253	213	318	39	103	252	421	1	

FORM No. 51.—*Area of Forest Tracts protected from Fire during the Dry Season of 1886 (to accompany Report for 1885-86).*

Division	Forest tracts	Year in which protection commenced	Area actually protected up to 1st June 1885	During dry season of 1886			Cost during the season	Remarks
				Area attempted to be protected	Failures	Actually protected		
			Acres	Acres	Acres	Acres	Rs	
West Salween	Sinzwè	1871	8,220	8,960		8,960	741	The monsoon setting in early this year the work of protecting the reserves from fire closed as early as the 10th May in this circle
	Wamu	1871	1 900	1 920		1 920	115	
	Kahilu	1878	1,280	1,280		1,280	189	
	Mewaing	1877	7,360	7,360	..	7 960	20	
	Minnannwè	1878	3,840	3 840		3 840		
	Ônkangyi	1877	8,235	8,320		8,320	97	
	Bilakatkyi	1877	2,500	4,160		4,160	23	
	Tagelaung	1885	2 472	3,072		3 072		
East Salween	Mepalè West	1881	25,082	25,600	2,330	23,270	2,689	
	Kyunchaung	1880	10 865	10,880		10,880	578	
Ataran	Dali	1878	73	100	18	82	171	
	Natchaung	1883	1,800	1,800		1,800	100	
	Pakabo	1883	3		..		..	This small area, which contains the only plantation in this reserve, was burnt before the fire-trace was begun
	Total Tenasserim Circle		73 630	77,292	2,348	74,944	4,723	

FORM No. 51.—*Area of Forest Tracts protected from Fire during the Dry Season of 1886 to (accompany Report for 1885-86)*—(concluded).

Division.	Forest tract	Year in which protection commenced.	Area actually protected up to 15th June 1885.	During dry season 1886. Area attempted to be protected	Failures.	Actually protected.	Cost during the season.	Remarks
			Acres.	Acres.	Acres.	Acres.	Rs	
PROME ...	Teak plantation	1875	75	75	35	40	16	
	Chaungzauk	1879	4,185	5,735	4,500	1,235	516	
THARRAWADDY	Bwet	1877	2,839	2,886	187	2,699	1,267	
	Nyanlè	1877	5,188	5,340	900	4,440	861	
	Bawbin	1869	590	814	500	314	298	
	Gwèdaukaan	1876	233	233	233	...	58	
	Kangyi	1877	4,896*	4,896	4,895	.	794	* Corrected by survey.
	Myodwin	1869	40	40	1	39	43	
	Myaung-Minhla	1876	819	819	819	..	170	
	Minhla Môkka	1876	2,108	3,000	3,000		110	
	Môkka-Bilin	1873	19,660	20,980	17,480	3,500	695	
	Thônzè Kôn-Bilin	1876	2,180	2,180	9	2,171	170	
	Gwedaukkwin	1886	.	2,000	1,697	303	594	
	Kyaukgyidaung	1886		1,500	109	1,391	406	
RANGOON ...	Magayi plantation	1872	1,605	1,626	100	1,526	1,615	
	Magayi reserve	1872	1,474	1,513	38	1,475		
	Kyetpyugan plantation	1868	682	683	.	683	689	
	Kyetpyugan teak yas	1884	30	62	4	58		
	Kyetpyugan reserve	1886	.	195	7	188		
	Dawe plantation	1883	108	299	...	299		The cost not disbursed before 15th June 1886.
	Dawè reserve	1883	30,641	30,451	..	30,451	.	
TOUNGOO ..	Pyun chaung	1877	3,440	3,440	..	3,440	354	
	Yanè	1877	5 760	5,760	..	5,760	390	
	East Swa	1883	17,280	17,280	..	17,280	603	
	Bondaung teak yas	1884	17	17	..	17	5	
	Kabaung	1884	6	105	..	105	...	
	Total Pegu Circle ...	.	1,03,856	1,11,929	34,515	77,414	9,654	
	TOTAL LOWER BURMA ...	..	1,77,486	1,89,321	36,863	1,52,358	14,377	

ANNUAL FORM No. 52.—*Statement showing the Area of Plantations in the Tenasserim Circle for 1885-86.*

Division	Name of plantation	Area in acres. On 1st April 1885	Area in acres. Added during the year	Area in acres. Excluded during the year.	Area in acres. Area on 31st March 1886	Receipts. Of the year.	Charges. Of the year.	Remarks.
	Regular Plantations					Rs	Rs.	
ATARAN	Thingan yinaung	16	...	...	16	...	...	
SALWEEN ..	Shwegun	5	...	...	5	...	...	
	Kolôn Island	2	..	...	2	...	...	
	Total ...	7	...	...	7	...	...	
	To al Regular Plantations ...	23	..	...	23	...	...	
	Cultural Operations.							
SOUTH TENASSERIM ...	Mergui experimental plantation (not teak)	108	..	..	108	6	728	
	Total Cultural Operations ...	108	...	...	108	6	728	
	Total Regular Plantations ...	23	...	...	23	...	...	
	Total Taungya Plantations ...	1,816	464	...	2,280	...	3,026	
	Total Cultural Operations ..	108	...	...	108	6	728	
	Total Tenasserim Circle ...	1,947	464	...	2,411	6	3,754	

ANNUAL FORM NO. 52 [PRESCRIBED.]—*Statement showing the Area of Plantations in the Pegu Circle for 1885-86.*

Division.	Name of plantation.	Area in acres. On 1st April 1885.	Area in acres. Added during the year.	Area in acres. Excluded during the year.	Area in acres. Area on 31st March 1886.	Receipts. Of the year. Rs.	Charges. Of the year. Rs.	Remarks.
	Regular Plantations.							
PROME ...	Prome plantation	73	.....	.....	73	.....	.....	
THARRAWADDY ...	Chaungzauk	340	.....	.....	340	.....	44	
	Kwémakaing	144	.....	.....	144	.....	60	
	Myodwin	10	.....	.....	10	.....	.....	
	Total ...	494	.....	.....	494	.....	104	
RANGOON ...	Kyetpyugan	713	32	.....	745	.....	911	
	Magayi	1,605	21	.....	1,626	.....	1,919	
	Total ...	2,318	53	.....	2,371	.....	2,830	
TOUNGOO ...	Kanni	65	.....	.....	65	.....	.....	
	Pyunchaung	701	.....	.....	701	.....	.....	
	Yanè	9	.....	.....	9	.....	.....	
	Total ...	775	.....	.....	775	.....	.....	
ARAKAN ...	Myauktaung	10	.....	.....	10	.....	.....	
	Total Regular Plantations ...	3,670	53	.....	3,723	.....	2,934	
	Cultural Operations.							
PROME ...	Chaungzauk	.....	.....	.....	.....	.....	16	
THARRAWADDY ...	Bwet	600	.....	.....	600	.....	252	
	Nyanlè	830	.....	.....	830	.....	322	
	Kangyi	350	.....	.....	350	.....	.....	
	Mókka-Bilin	1,008	.....	.....	1,008	.....	.....	
	Kyaukkyidaung	.....	.....	.....	.....	.....	.....	
	Gwédaukkwin	.....	.....	.....	.....	.....	.....	
	Pazingyi	125	.....	.....	125	.....	839	
	Kadinzauk	300	.....	.....	300	.....	293	
	Teak and cutch seeds	.....	.....	.....	.....	.....	50	
	Total ...	3,213	.....	.....	3,213	.....	1,756	
RANGOON ...	Magayi	.....	.....	.....	.....	.....	.....	
TOUNGOO ...	Pyunchaung	.....	.....	.....	.....	.....	.....	
	Total Cultural Operations ...	3,213	.....	.....	3,213	.....	1,772	
	Total Regular Plantations ...	3,670	53	.....	3,723	.....	2,934	
	Total Taungya Plantations ...	6,333	1,705	.....	8,038	.....	22,565	
	Total Cultural Operations ...	3,213	.....	.....	3,213	.....	1,772	
	Total Pegu Circle ...	13,216	1,758	.....	14,974	.....	27,271	
	ABSTRACT.							
	Lower Burma.							
	Total Regular Plantations	3,693	53	.....	3,746	.....	2,934	
	Total Taungya Plantations	8,149	2,169	.....	10,318	.....	25,591	
	Total Cultural Operations	3,321	.....	.....	3,321	6	2,500	
	GRAND TOTAL EXPENDITURE LOWER BURMA ...	15,163	2,222	.....	17,385	6	31,025	

FORM No. 52A.—*Statement of Taungya Teak and Thitka Plantations in the Tenasserim Circle for 1885-86.*

Division.	Name of reserve.	Year of formation.	Area on 1st April 1885.	Area planted with teak during 1885-86.	Cost up to 1884-85. Original cost.	Cost up to 1884-85. Maintenance.	Cost during 1885-86. Original cost.	Cost during 1885-86. Maintenance.	Total cost.	Average cost per acre up to 1885-86.	Area on 31st March 1886.	Remarks.
					Rs	Rs.	Rs.	Rs.	Rs.	Rs. A. P.	Acres.	
WEST SALWEEN	Sinzwè	1869-70	962	92	1,861	2,985	369	677	5,892	5 9 5	1,054	Taxes paid.
	Wamu	1877-78	49	6	223	75	47	28	373	6 12 6	55	No taxes paid.
	Kahilu	1879-80	39	5	177	423	17	63	680	15 7 3	44	
	Ônkangyi	1877-78	121	170	589	121	448	146	1,304	4 7 8	291	
	Bilakatkyi	1877-78	35	58	75	6	121	81	283	3 0 8	93	
	Minnannwè	1877-78	113	...	436	115	...	...	551	4 14 0	113	
	Mèwaing	1878-79	209	21	871	211	118	79	1,279	5 9 0	230	Taxes paid.
	Total ...	....	1,528	352	4,232	3,936	1,120	1,074	10,362	5 8 2	1,880	
ATARAN	Dali	1877-78	100	27	374	146	96	17	633	4 15 9	127	The figures in the body of the report do not agree with this statement, which shows only the expenditure incurred up to the 31st March and not the actual cost of the plantations.
	Kyunchaung	1881-82	94	27	770	186	125	48	1,129	9 5 3	121	
	Pakabo	1883-84	3	...	11	3	...	4	18	6 0 0	3	
	Total ...	..	197	54	1,155	335	221	69	1,780	7 1 6	251	
EAST SALWEEN	Mèpalè	1882-83	85	58	381	74	417	123	995	6 15 4	143	
	Total ...	.....	85	58	381	74	417	123	995	6 15 4	143	
	Plantation other than Teak.											
WEST SALWEEN	Kahilu	1883-84	6	...	35	12	...	2	49	8 2 8	6	
	Total ...	....	6	...	35	12	...	2	49	8 2 8	6	
	GRAND TOTAL ...	...	1,816	464	5,803	4,357	1,758	1,268	13,186	5 12 6	2,280	

FORM No. 52A.—*Statement of Taungya, Teak, Cutch, &c., Plantations in the Pegu Circle for 1885-86.*

Division.	Name of reserve.	Year of formation.	Amount on 1st April 1880.	Area planted with teak during the year.	Cost up to 1884-85. Original.	Cost up to 1884-85. Maintenance.	Cost during 1885-86. Original.	Cost during 1885-86. Maintenance.	Total cost.	Average cost per acre up to 1885-86.	Area on 31st March 1886.
					Rs.	Rs.	Rs.	Rs.	Rs.	Rs. A. P.	
PROME ...	Chaungzauk	1879-80 ...	67	.....	304	609	.....	.....	913	.....	.....
		1880-81 ...	132	.....	319	340	.....	.....	659	.....	.....
		1881-82 ...	102	.....	712	416	.....	.....	1,128	.....	.....
		1882-83 ...	98	.....	712	391	.....	.....	1,103	.....	.....
		1884-85 ...	41	.....	235	.....	.....	.....	235	.....	.....
		1885-86 ...	.....	40	.....	.....	316	.....	316	.....	.....
	Total ...	.....	440	40	2,282	1,756	316	.....	4,354	9 1 2	480
	Bwet	1875-76 ...	37	.....	.....	.....	.....	.....	.....	.....	.....
		1876-77 ...	50	.....	.....	.....	.....	.....	.....	.....	.....
		1877-78 ...	44	.....	.....	.....	.....	.....	.....	.....	.....
		1878-79 ...	150	.....	.....	.....	.....	.....	.....	.....	.....
		1880-81 ...	19	.....	.....	.....	.....	.....	.....	.....	.....
	Total ...	.....	300	.....	1,613	448	.....	.....	2,061	5 13 11	300
	Shwele Yoma	1875-76 ...	11	.....	76	.....	.....	.....	76	6 14 7	11
	Nyanlé	1878-79 ...	1			28	.....	.....	.....	.....	.....
		1879-80 ...	8			175	.....	.....	.....	.....	.....
		1880-81 ...	28	.....	806	32	.....	.....	.....	.....	.....
		1881-82 ...	14			92	.....	.....	.....	.....	.....
		1882-83 ...	20			35	.....	.....	.....	.....	.....
		1883-84 ...	18	.....	151	44	.....	.....	.....	.....	.....
		1884-85 ...	117	.....	1,216	235	.....	.....	.....	.....	.....
		1885-86 ...	.....	106	.....	.....	1,385	.....	.....	.....	.....
	Total ...	.....	206	106	2,173	362	1,385	279	4,199	13 7 4	312
	Taungnyo Yoma	1875-76 ...	15	.....	135	59	.....	.....	194	12 14 11	Failure 15
	Thitcho	1869-70 ...	7	.....	70	.....	.....	.....	.....	.....	.....
		1870-71 ...	8								
	Total ...	.....	15	.....	70	.....	.....	.....	70	4 10 8	Unsatisfactory 15
	Gwedauksan	1875-76 ...	11								
		1876-77 ...	9								
		1878-79 ...	8	.....	697	200	.....	.....	.....	.....	.....
		1880-81 ...	15								
		1881-82 ...	10		.....	26	.....	.....	.....	.....	.....
		1882-83 ...	11		.....	50	.....	.....	.....	.....	.....
		1883-84 ...	17	.....	202	34	.....	43	.....	.....	.....
	Total ...	.....	81	.....	899	310	.....	43	1,252	15 7 4	81
	Bawbin Kyaukpyu ...	1875-76 ...	15	.....	118	10	.....	.....	128	8 8 6	Failure
	Bawbin Chaungwa ...	1869-70 ...	17								
		1873-74 ...	4								
		1874-75 ...	30								
		1876-77 ...	30								
		1877-78 ...	25	.....	1,816	672	.....	.....	.....	.....	.....
		1878-79 ...	26								
		1879-80 ...	18								
		1880-81 ...	28								
		1881-82 ...	28			69	.....	.....	.....	.....	.....
		1884-85 ...	56	.....	593	.....	112	.....	.....	.....	.....
		1885-86 ...	.....	8	.....	.....	121	.....	.....	.....	.....
	Total ...	.....	262	8	2,409	741	121	112	3,383	12 8 6	270

DIVISION.

THARRAWADDY	Kangyi ...	1878-79	54	.....	1,637	.....	.....	.....	.....	.....	.....		
		1879-80	66										
		1880-81	58			817							
		1881-82	14			34							
		1882-83	3			15							
		1883-84	44		493	89		111					
		1884-85	24		201			49					
		1885-86		21			286						
	Total ...	.....	263	21	2,331	955	286	160	3,792	13 2 3		284	
	Minhla Myaung ...	1873-74	22	.....	1,184	843	.....	.....	.....	.....	.....		
		1874-75	40										
		1875-76	57										
		1883-84	28		166	65		71					
		1884-85	40		586			101					
		1885-86		79	350		1,146						
	Total	.....	187	79	2,286	908	1,146	172	4,512	16 15 5		266	
	Minhla Mokka ...	1873-74	23	.....									
		1874-75	41										
		1875-76	66		3,714	1,338							
		1880-81	38										
		1881-82	131			241							
		1882-83	123		20	542							
		1883-84	213		2,001	513		533					
		1884-85	138		1,708			346					
		1885-86		201	600		2,804						
	Total ...	.....	793	201	8,043	2,634	2,804	879	14,360	14 7 2		994	
	Mokka-Bilin ...	1869-70	10										
		1870-71	12										
		1871-72	27										
		1873-74	160										
		1874-75	157										
		1875-76	29										
		1876-77	155										
		1877-78	96		10,762	4,031							
		1878-79	102										
		1879-80	86										
		1880-81	136										
		1881-82	259			556							
		1882-83	233			1,040							
		1883-84	245		3,003	607		607					
		1884-85	311		3,408		18	731					
		1885-86		489	1,350		5,513						
	Total ...	.....	2,018	489	18,523	6,234	5,531	1,338	31,626	12 9 10		2,507	
	Kadin-Bilin ...	1875-76	4	.....	23	17	.....	.....	40	10 0 0		4	
	Myodwin ...	1885-86		2			31		31	15 8 0		2	
	Thônzè Kôn-Bilin ...	1875-76	19	.....									
		1877-78	38										
		1878-79	34										
		1879-80	41		2,130	878							
		1880-81	95										
		1881-82	77			117							
		1882-83	52		10	242							
		1883-84	117		1,069	232		232					
		1884-85	65		828		12	160					
		1885-86		88	200		859						
	Total ...	.....	538	88	4,237	1,469	871	392	6,969	11 2 1		626	
	TOTAL THARRAWADDY ...	.....	4,708	904	42,986*	14,147*	12,175	3,375	72,633	.....		5,702	
RANGOON ...	Dawè ...	1882-83	30	139	53	.....	734	.....	1,642	.....	.....		
		1883-84	57	.....	322	.....							
		1884-85	73	.....	379	.....	154	.....		.....	.....		
		1885-86		65	.....	.....							
	TOTAL RANGOON ...	.....	160	204	754	.....	888	.....	1,642	4 8 2		364	
SHWEGYIN ...	Kyaukkataung ...	1885-86	.....	12	.....	.....	.....	30	30	2 8 0		12	

* Total of two columns against Tharrawaddy 61,400 shown last year as 58,780, difference 2,620 value of seed allotted in 1885-86.

STATEMENT No. 52A.—*Statement of Taungya, Teak, Cutch, &c., Plantations in the Pgeu Circle for 1885-86*—(concluded).

Division.	Name of reserve.	Year of formation.	Area on 31st March 1885.	Area planted with teak during the year.	Cost up to 1884-85. Original.	Cost up to 1884-85. Maintenance.	Cost during 1885-86. Original.	Cost during 1885-86. Maintenance.	Total cost.	Average cost per acre up to 1885-86.	Area on 31st March 1886.
					Rs.	Rs.	Rs.	Rs.	Rs.	Rs. A. P.	
TOUNGOO ...	Yènè	1883-84 ...	33	21	345	66	283	74	768	.....	.....
	East Swa	1884-85 ...	48	43	542	78	379	116	1,115	.....	.....
	Bôndaung		24	.	189	37	.....	42	268	.....	.....
	Kabaung		7	99	121	12	1,022	14	1,169	.....	.....
	Pyunchaung	1884-85 ...	...	30	222	.....	173	43	438	.....	Failure 21
	TOTAL TOUNGOO ...	.....	112	193	1,419	193	1,857	289	3,758	12 5 2	305
	TOTAL TEAK TAUNGYAS ...	.....	5 420	1,443	47,391	16,096	15,236	3,694	82,417	.....	6,863
PROME ...	Chaungzauk	1882-83 ...	38	.....	350	152	.....	.....	502	13 3 4	38
TOUNGOO ...	Pyunchaung	1885-86 ...	...	2	.....	.....	8	.....	8	4 0 0	2
	TOTAL CUTCH TAUNGYAS ...	.....	38	2	350	152	8	...	510	.....	40
PROME ...	Chaungzauk	1883-84 ...	243	.....	2,135	475	.....	394	3,004	.....	.....
		1884-85 ...	166	.....	950	.....	.....	256	1,206	.....	.....
		1885-86 ...	.....	85	..	.....	907	.....	907	.....	.....
	TOTAL PROME ...	.....	409	85	3,085	475	907	650	5,117	10 5 9	494
THARRAWADDY.	Kyaukkyidaung	1883-84 ...	33	.....	342	46	.....	82	.....	.....	.....
		1884-85 ...	93	.....	763	.....	..	186	.....	.....	.....
		1885-86 ...	.....	109	103	.. .	750	.....	.....	.....	....
	Total ...	.....	126	109	1,208	46	750	268	2,272	9 10 8	235
	Gwedaukkwin	1883-84 ...	91	.....	663	120	.....	228	.....	....	.....
		1884-85 ...	237	.....	2,155	...	.....	414	.....	.....	.....
		1885-86 ...	.....	66	17	.....	387	.....	.....	.....	.....
	Total ...	.....	328	66	2,835	120	387	642	3,984	10 1 9	394
	Pazingyi	1884-85 ...	12	.....	108	...	...	23	131	10 14 8	12
	TOTAL THARRAWADDY ...	.....	466	175	4,151*	166*	1,137	933	6,387	.....	641
	TOTAL TEAK AND CUTCH ...	.....	875	260	7,236	641	2,044	1,583	11,504	.....	1,135
	TOTAL TAUNGYAS ...	.....	6,333	1,705	54,977	16,889	17,288	5,277	94,431	.....	8,038

* Total of two columns against Tharrawaddy 61,400 shown last year as 58,780, difference 2,620 value of seed allotted in 1885-86.

FORM No. 53.—*Statement showing number of Trees Felled or Girdled by Government Agency in the Tenasserim Circle during 1885-86.*

(SELECTION FELLINGS).

Division.	Trees felled or girdled. Description.	Number.	Remarks.
West Salween ...	Teak ...	1,000	Inside reserves.
East Salween ...	Teak ...	930	Ditto.
	Teak ...	170	Outside reserves.
	Padauk	150	Ditto
Ataran ..	Teak ...	198	Ditto.
	Padauk	100	Ditto
	Total ...	2,548	
	Abstract of the Circle.		
	Teak ...	2,298	
	Padauk	250	
	Total ...	2,548	

FORM No. 53.—*Statement showing number of Trees Felled or Girdled by Government Agency in the Pegu Circle, during 1885-86.*

(SELECTION FELLINGS).

Division	Trees felled or girdled Description	Number.	Remarks
Prome ...	Teak	2,000	Outside reserves.
Tharrawaddy .	Teak	4,970	Ditto
Rangoon ...	Teak	1,200	Inside reserves
	Pyinma	500	Ditto
Toungoo ...	Teak	300	Outside reserves.
		6,900	Ditto.
	Total ..	15,876	
	Abstract		
	Teak	15,576	
	Pyinma	300	
	Total ...	15,876	

FORM No. 54.—*Statement of Outturn of Timber and Firewood in the Tenasserim Circle during 1885-86.*

Division.	Description of material.	Outturn in cubic feet.								Remarks.
		Selection fellings.	Clearances.	Thinnings.	Total.	Removed by Government agency.	Purchasers.	Free grants.	Right-holders.	
	I.—Reserved Forests.									
East Salween ...	Teak logs and pieces	...	...	...	...	82,808	...	...	...	
West Salween ...	Teak pieces and crooks	...	...	...	...	12,745	...	...	...	
	Teak logs, pieces and crooks	...	..	...	...	21,020	..	...	...	
Ataran	Teak logs, pieces and crooks	..	...	...	...	3,910	...	...	...	
	Total ...	...	...	...	...	120,483	...	...	...	
	II.—Protected Forests.									
	Nil.									
	III.—Unreserved Forests									
Salween	Teak logs, pieces and crooks	...	...	...	.	19,458	...	...	..	
	Pyinma logs	...	...	...	...	397	736	2,040	...	
	Thingan logs	...	...	...	...	...	202	...	...	
	Thingan hulls	...	...	...	...	..	728	...	...	
	Pyinma hulls	...	...	...	...	..	25	...	...	
	Thitka hulls	...	...	...	..	...	16	...	...	
	Teak hulls	..	...	...	...	...	80	...	...	
	Unreserved woods, logs, and hulls	...	...	...	...	...	16,051	...	...	
	Charcoal[a]	...	...	...	...	...	...	...	...	
	Teak logs	...	...	...	..	...	...	...	14,890	
	Teak stem pieces	...	...	...	...	...	...	...	5,075	
	Teak crooks	...	...	...	...	...	...	...	19,050	
	Thitka logs	...	...	...	...	...	...	120	...	
	Taungbain logs...	...	...	...	...	...	...	40	...	
	Pyingado logs	...	...	...	...	..	...	900	...	
	Teak logs and pieces	...	...	...	...	191,400	...	.	...	
	Teak pieces and crooks	...	..	...	...	25,983	...	.	...	
	Padauk logs	...	..	..	...	5,088	...	..	...	
	Thitka logs	...	...	...	...	12,084	..	...	...	
	Pyinma logs	...	...	...	...	10,511	1,325	...	...	
	Thitkado	...	...	...	...	195	...	...	...	

East Salween ...	Pyingado posts	...	...	6,366	...	...	...
	Pyingado pieces	...	...	163	...	..	...
	Pyingado spars	...	...	25	.	...	...
	Thingan spars ...	...	...	86	...	...	...
	Thingan logs ...	...	...	..	427	...	...
	Thingan hulls ...	...	...	...	3,236	...	...
	Unreserved woods and logs	...	...	...	13,205	...	..
	Teak logs ..	...	...	...	...	1,800	...
West Salween ...	Teak logs and pieces	...	...	17,995	..	...	...
	Teak logs ...	...	...	9,805	.	1,500	...
	Pyinma logs ...	...	...	4,174	450	...	...
	Thingan hulls...	...	...	...	106	...	...
	Unreserved woods and logs	...	...	...	14,000	...	...
Ataran ...	Teak logs, pieces, and crooks	...	...	27,729	...	...	...
	Padauk logs ...	...	...	16,999	...	...	.
	Thitka logs ...	...	...	18,856	...	290	17,987
	Pyinma logs ...	...	...	1,293	149	3,290	75
	Thitkado logs ...	...	...	360	...	.	600
	Ingyin logs ...	...	...	569	...	...	...
	Padauk branches	...	...	27	...	...	...
	Thingan logs ...	...	...	36	576	1,500	...
	Thingan hulls ..	...	...	...	10,056	...	...
	Kaunghmu hulls	...	...	.	861	...	365
	Unreserved woods and logs	...	...	...	84,565	..	..
	Charcoal* ..	...	...	...	..	...	...
	Yamani logs ...	...	...	..	...	..	30
	Teak logs .	...	...	...	...	250	68 410
	Teak stem pieces	...	...	...	...	...	14,175
	Teak crooks ...	...	...	...	...	...	8,520
	Pyingado logs ...	...	...	...	...	4,050	..
	Anan logs ...	...	...	...	...	1,300	...
	Ingyin logs ...	...	...	...	..	480	...
	Kaukehwe logs...	...	...	...	...	1,000	..
South Tenasserim ...	Thingan logs and hulls ...	...	...	..	34,400	...	...
	Thitka logs and hulls ...	...	...	...	1,100	.	...
	Anan logs ..	...	...	.	2,205	4,950	...
	Karawe logs and hulls ...	...	...	...	3,760	..	...
	Kanzo logs and hulls ..	...	...	...	11,385	...	...
	Unreserved woods, logs, &c.	...	...	...	36,600	...	...
	Charcoal* ...	...	...	...	..	.	...
	Thingan logs ...	...	...	..	...	2,100	.
	Karawe logs ...	...	...	...	...	1,500	...
	Pyinma logs ...	...	...	...	...	800	...
	Total ...	...	...	...	369,599	236,244	27,820	149,177
	Total Tenasserim Circle ...	...	...	...	490,082	236,244	27,820	149,177

* The total quantity of firewood used cannot be given as licenses are issued for the number of men engaged and not for the quantity of wood consumed.

FORM No. 54.—*Statement of Outturn of Timber and Firewood in the Pegu Circle during 1885-86.*

Division.	Description of materials.	Outturn in cubic feet. Selection fellings.	Clearings.	Thinnings.	Total.	Removed by Government Agency.	Purchasers.	Free grants.	Right-holders	Remarks.
	I.—Reserved Forests.									
Prome ...	Cutch logs ...	...	..	...	...	.	2,500	..	...	
	Teak posts ...	...	...	...	...	9,530	..	...	...	
Tharrawaddy ...	Teak logs ...	...	...	...	...	324,040	...	...	...	
	Cutch ...	...	...	...	...	...	1,28,510	...	...	
Rangoon ...	*Upper Zamayi*—									
	Refuse teak	...	...	...	...	85,990	1,550	800	...	
	Refuse yatthits ...	...	...	.	...	4,050	...	...	..	
	Kadat—									
	Refuse teak	...	...	...	...	60,610	...	...	...	
	Ökkan—									
	Refuse teak ...	...	..	...	...	4,750	...	...	...	
	In logs	...	..	...	...	..	300	...	...	
	Girdled teak ...	...	...	...	...	15,100	.	...	...	
	Total ...	...	...	...	...	504,070	132,860	800	...	
	II.—Protected Forests.									
	Nil.									
	III.—Unreserved Forests.									
Prome ...	Teak logs ...	...	...	...	...	99,905	...	...	...	
	Teak refuse ...	...	...	...	...	475	100	1,000	...	
	Teak bala ...	...	...	...	...	90	..	..	...	
	Teak paddy-field ...	...	...	...	...	...	3,350	1,600	...	
	Dugyis ...	...	...	...	...	...	372,750	...	...	
	Yatthits ...	...	...	...	...	..	33,100	...	...	
	Post and poles ...	...	...	...	...	..	..	..	...	1,039 trees.
	Charcoal ...	...	...	...	...	...	5,700	5,550	...	225 in number.
Tharrawaddy ..	Teak logs ...	...	...	...	...	250,760	.	...	...	
	Teak planks ...	...	...	...	...	...	900	2,300	...	
	Pyinma ...	...	...	...	...	...	.	...	...	
	Kanyin ...	...	...	...	...	5,000	5,140	...	...	
	Reserved logs ...	...	...	...	...	...	4,400	...	...	
	Poles ...	...	...	...	...	...	...	...	...	40 pieces
	Firewood ...	...	...	...	...	...	...	...	...	1,080 trees.
	Charcoal ...	...	...	...	...	...	...	...	...	
Rangoon	Pyingado logs ...	...	...	...	...	3,346	...	...	...	50,002 sleepers obtained by purchase.
	Pyingado scantlings ...	...	...	...	...	404	...	...	...	
	Girdled teak ...	...	...	...	...	7,400	...	...	...	
	Reserved woods... ...	...	..	...	...	10,600	...	..	...	
	Unreserved woods ..	...	...	...	...	..	488,950	1,050	...	
	Small posts ...	..	...	...	...	...	4,000	.	...	

TOUNGOO	Teak logs ...	...	...	...	...	...	...	...	290,150	...	450	...	
	Other kinds logs ...	...	...	...	...	...	...	...	2,250			...	
	Reserved woods ...	...	...	...	...	...	...	...	...	250	1,600	...	
	Dugyis and yatthits ...	...	...	...	...	...	...	...	...	60,000	2,500	...	
	Posts and poles ...	...	...	...	...	...	...	...	...	1,850		...	
	Charcoal	...	...	...	...	...	...	...	...	...	...	...	2,010 trees.
SHWEGYIN	Teak logs ...	...	...	...	...	...	...	...	42,600	2,050	...	...	
	Other kinds ...	...	...	...	...	...	...	...	20,000		...	...	
	Reserved logs ...	...	...	...	...	...	...	...	...	30,150	...	...	
	Unreserved logs ...	...	...	...	...	...	...	...	...	251,750	...	...	
	Poles and posts ...	...	...	...	...	...	...	...	...	5,550	...	...	
	Charcoal	...	...	...	...	...	...	...	...	...	...	...	534 trees
WESTERN DIVISION ...	Teak logs ...	...	...	...	...	...	...	...	4,700	3,600	10,400	...	
	Pyingado ...	...	...	...	...	...	...	...	97,500	...	...	...	
	Other kinds, sleepers, slabs, and ends				...	...	...	...	...	...	...	...	26,295 and 6,627 obtained by conversion.
	Kahnt and kanyin logs ...	...	...	...	...	...	...	...	13,400	2,350	8,800	...	
	Other kinds ...	...	...	...	...	...	...	...	2,100	308,000	1,000	...	
	Other planks ...	...	...	...	...	...	...	...	600			...	
	Posts and poles ...	...	...	...	...	...	...	...	...	131,900		...	
	Total ...				...	...	...	...	841,280	1,716,040	36,250	...	
	GRAND TOTAL PEGU CIRCLE ...				...	...	...	...	1,345,350	1,848,900	37,050	...	

FORM No. 55.—*Statement showing Outturn of Minor Forest Produce in the Tenasserim Circle for 1885-86.*

Division.	Description of produce.	Produce removed or utilized.										Remarks.
		By Government Agency		*By purchasers.*		*By free grants.*		*By right-holders*		*Total*		
		Quantity	Value	Quantity	Value.	Quantity.	Value.	Quantity	Value	Quantity.	Value	
			Rs		Rs		Rs		Rs		Rs	
				I—RESERVED FORESTS.								
				Nil								
				II—PROTECTED FORESTS								
				Nil.								
				III.—UNRESERVED FORESTS.								
SALWEEN ...	Wood-oil	...	...	.	32	.	...	...	...	...	32	There are no means of ascertaining the quantities extracted, as fees only are levied on the number of men collecting the produce.
ATARAN ...	Do	...	...	.	96	..	...	...	...	...	96	
SOUTH TENASSERIM	Do.	...	...	.	1,633	...	...	...	...	...	1,633	
	Total ...	...	...	...	1,761	.	...	...	...	...	1,761	

FORM No. 55.—*Statement showing Outturn of Minor Forest Produce in the Pegu Circle for 1885-86.*

Division.	Description of produce.	Produce removed or utilized. By Government Agency		By purchasers.		By free grants.		By right-holders		Total.		Remarks.
		Quantity	Value.	Quantity.	Value.	Quantity	Value.	Quantity	Value.	Quantity	Value.	
			Rs		Rs		Rs.		Rs		Rs.	
	I—RESERVED FORESTS											
PEGUE	Bamboos ...	no 40	15	..	..	..	...	...	..	no. 40	15	
THARRAWADDY	Bamboos	...	...	no. 865,450	2,164	...	...	...	..	no. 865,450	2,164	
	Grazing	...	..	head 214	89	..	...	...	..	head 214	89	
	Cutch	..	...	pans 208	11,360	...	...	...	...	pans 208	11,360	
	Wood-oil	...	..	licenses 16	80	...	..	...	...	licenses 16	80	
	Honey	...	...	" 4	49	...	...	...	...	" 4	49	
	Cigar leaves	...	...	no. 2,214 000	111	...	...		...	no. 2,214,000	111	
	Do.	...	...	viss 117	39	..	...	..	...	viss 117	39	
	Shaw bark	...	...	" 11 910	200	.	...	...	...	" 11,910	200	
	Do.	...	..	" 570	7	...	...	...	..	" 570	7	
	Do.	...	...	" 69	7		.	..	...	" 69	7	
	Edible roots	...	..	" 90	1	...	...	...	...	" 90	1	
	Thatch	...	...	" 3,000	42	...	...	..	...	" 3,000	42	
BANGOON	*Bamboos—*											
	Hlaing Yoma reserve	..	..	no. 1,000	3	..	...	...	...	no. 1,000	3	
	Thitpyat reserve	..	..	" 2,900	7	...	..	...	...	" 2 900	7	
	Thabyu do.	...	..	" 4 200	11	..	.	..	...	" 4,200	11	
	Magayi do.	...	...	" 28,600	71	...	..	...	...	" 28,600	71	
	Ôkkan do	...	..	" 316,000	618	...	...	.	...	" 316,000	618	
	Paunglin do.	...	...	" 163,000	407	...	..	...	.	" 163,000	407	
	Kadat do	..	...	" 83 200	208	...	...	...	..	" 83,200	208	
	South Zamayi reserve	...	..	" 54,500	136	...	...	...	...	" 54,500	136	
	Thitpya trees, buffaloes	...	..	" 2	1	...	...	...	...	" 2	1	
	Ditto, cows	...	..	" 202	79	...	...	...	...	" 202	79	
	Magayi, buffaloes	...	..	" 65	33	...	..	...	...	" 65	33	
	Do, cows	...	..	" 12	3	...	..	.	..	" 12	3	
	Thabyu, buffaloes	...	..	" 20	20	..	..	...	.	" 20	20	
	Ôkkan, do.	...	..	" 43	21	...	...		.	" 43	21	
	Do, cows	...	..	" 14	3	..	...	..	...	" 14	3	
	Zamayi, Shaw trees	...	...	" 14	7	...	..	...	...	" 14	7	
	Paunglin, do.	...	..	" 49	25	...	...	...	..	" 49	25	
	Ôkkan, do	...	.	" 70	36	...	...	...	.	" 70	36	
	Thitpyat, do.	...	..	" 4	2	...	...	...	...	" 4	2	
	Do, Theng carts	...	...	carts 1	4	...	.	...	...	carts 1	4	
	Hlaing Yoma canes	..	.	bundles 1	4	...	.		...	bundles 1	4	
	Do Thekkai	...	..	" 7	15	...	...	...	..	" 7	15	
	Himawbi do.	...	...	" 1	4	..	...	..	...	" 1	4	
	Magayi Salu ...	...	...	" 1	1	..	...	..	...	" 1	1	
	Cutch cauldrons...	...	...	1	20	.	..	..	...	1	20	
	Kanyin oil ...	...	.	men 19	42	...	..	...	...	men 19	42	
TOUNGOO	Bamboos	...	...	no. 18,150	45	...	...	..	...	no. 18,150	45	
	Canes ...	..	..	" 120	12	...	..	...	..	" 120	12	
	Shaw fibre	..	..	viss 1,200	12	...	..	...	...	viss 1,200	12	
	Honey	..	..	" 150	35	...	.	...	..	" 150	35	
	Kanyin oil	...	.	" 80	6	...	..	...	...	" 80	6	
	Total ...	...	15	...	16,040	...	..	...	...	...	16,055	
	Carried over ...	...	15	...	16,040	...	..	...	...	...	16,055	

FORM No. 55.—*Statement showing Outturn of Minor Forest Produce in the Pegu Circle for 1885-86*—(concluded).

Division.	Description of produce.	Produce removed or utilized. By Government Agency. Quantity.	Value	By purchasers. Quantity.	Value	By free grants. Quantity.	Value.	By right-holders. Quantity.	Value.	Total Quantity.	Value.	Remarks.
			Rs.		Rs.		Rs.		Rs.		Rs.	
	Brought forward ...	...	15	...	16,040	...	...	...	...	...	16,055	
				III.—UNRESERVED FORESTS								
PROME ...	Bamboos ...	...	...	no. 5,800	915	...	...	...	...	no. 5,800	15	
	Cutch ...	...	...	pans 2,045	40,900	1,027	20,540	...	...	pans 3,072	61,440	
	Wood-oil ...	...	...	license 24	48	...	...	...	...	viss 24	48	
	Resin ...	...	...	" 30	60	...	...	...	...	" 30	60	
THARRA-WADDY.	Cutch	...	...	pans 606	12,120	...	...	...	...	pans 606	12,120	
	Wood-oil	...	...	viss 34	68	...	...	...	...	viss 3	68	
TOUNGOO ...	Cutch ...	...	...	trees 2,000	200	...	...	...	...	trees 2,000	200	
	Kanyin oil	...	...	viss 3,000	204	...	...	...	...	viss 3,000	204	
	Thitai	...	...	" 6,000	470	...	...	...	...	" 6,000	470	
SHWEGYIN ...	Wood-oil	...	...	permits 102	204	...	...	...	...	permits 102	204	
WESTERN ...	Cutch ...	...	...	pans 109	2,180	...	...	...	...	...	2,180	
	Kanyin oil	...	...	...	14	...	...	...	...	...	14	
	TOTAL ...	...	...	...	56,483	...	20,540	...	...	...	77,023	
	GRAND TOTAL ...	...	15	...	72,523	...	20,540	...	...	...	93,078	

Annual Form No. 56 [Prescribed].—*Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1885-86.*

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
TENASSERIM CIRCLE.				
Timber.				
Balance at the commencement of the year.				
Salween Division.				
Teak logs, foreign	60	5,221		
Teak logs and pieces, drift	129	2,886		
Ingyin logs	14	529		
Pyingado sleepers, small.	238	275		
Thitya sleepers ...	8	27		
Teak scantlings, tons.	12	640	461	9,578
East Salween Division.				
Teak logs, Thaungyin	27	729		
Padauk logs ..	88	1,443		
Thitkado logs ..	2	60		
Thingan boat hulls ...	3	266	120	2,498
West Salween Division.				
Teak logs .	17	997		
Pyingado sleepers, large .	140	485	157	1,482
Ataran Division.				
Padauk logs and pieces	192	2,877		
Pyinma logs ...	60	1,891		
Ingyin logs ..	34	982		
Thitka logs ...	6	330		
Sit logs	6	115		
Yamanè logs ...	14	529		
Thitya logs .	7	208		
Petwun logs ...	18	371		
Thingan logs ...	108	4,905		
Padauk branches .	133	138		
Padauk planks tons	1	52	579	12,458
South Tenasserim Divisio				
Thitka logs ...	28	1,884		
Yamane logs ..	17	527		
Anan logs ...	10	316		
Kamaung logs ..	49	2,775		
Thingan logs ...	97	4,523		
Padauk logs ...	38	3,451		
Drift { Tagu ...	1	20		
Drift { Zinbyun ...	1	13		
Drift { Thitshu	1	56		
Scantling 4½ inches by 12 inches	7	352		
Scantlings 10 feet by 5 inches by 2½ inches	20	17		
Sleepers, large ...	1,286	4,181		
Sleepers, small ...	14,067	18,762	15,622	36,677
Kado Division.				
Drift timber ...	1,609	51,958		
Foreign teak ..	92,045	3,681,800		
Foreign woods, other kinds ...	59	2,360		
British teak	6,144	122,800		
British woods, other kinds ...	143	4,000	100,000	3 862,918
Total Balance ...			116,939	3,925,811
Received from the Forests in Depôts.				
Teak logs, pieces, and crooks	15,426	412,853		
Padauk logs ...	541	22,087		
Thitka logs ..	416	30,940		
Thitkado logs	11	555		
Pyinma logs .	377	16,352		
Ingyin logs ...	14	569		
Padauk branches ...	16	27		
Drift { Teak ...	12	630		
Drift { Thingan ...	1	24		
Sleepers, small ..	1,400	1,866		
Scantlings 15 feet by 5½ inches by 2½ inches.	13	26	18,227	485,029
Carried over ...	...	...	135,166	4,411,740

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
TENASSERIM CIRCLE				
Timber.				
Removed by purchasers from depôts.				
Teak logs, pieces, and crooks	15,529	419,754		
Padauk logs ...	513	21,104		
Thitka logs ...	410	30,728		
Pyinma logs ...	344	14,650		
Thitkado logs ...	8	360		
Ingyin logs ...	22	755		
Padauk branches .	149	165		
Padauk log ends ...	7	...		
Thingan ...	20	1,077		
Thitshu ...	3	231		
Pyingado sleepers small ...	15,092	20,028		
Drift { Thingan ...	1	24		
Drift { Teak ...	3,591	121,665		
Drift { Zinbyun ...	1	13	35,690	640,553
Number of logs cleared up to date on payment of duty from depots.				
Foreign teak, logs, &c.	102,066	6,482,640		
Foreign woods and other kinds, logs, &c. ...	16	750		
British teak logs ...	5,209	156,270		
British woods, other kinds	473	10,500	167,764	6,650,160
Number of drift logs delivered to claimants on payment of salvage.	1,059	45,450	1,059	45,450
Sold locally.				
Pyingado posts .	1,319	6,366		
Pyingado pieces ...	140	163		
Pyingado spars ...	4	25		
Thingan spars ...	2	86		
Pyinma pieces ...	1	23		
Thingan pieces ...	1	36	1,467	6,699
Converted in depôts.				
Drift teak logs and pieces	164	4,286		
Pyinma	31	1,043	195	5,329
Lost or written off as useless.				
Yamanè ..	17	527	17	527
Used by the Department.				
Teak scantlings tons .	54	2,711		
Pyinma scantlings ...	11	560	65	3,271
Transferred to the Salween division.	107	4,280	107	4,280
Balance at close of the year				
Salween division.				
Pyinma logs ...	12	397		
Ingyin logs	14	529		
Pyingado sleepers, small	238	275		
Thitya sleepers ..	8	27		
Teak scantlings tons	15	775		
Pyinma scantlings do.	4	219	291	2,222
East Salween division.				
Padauk logs .	88	1,443		
Thitkado logs ...	5	255		
Thitka logs .	6	217		
Thingan boat hulls ...	3	266	102	2,181
West Salween division				
Teak logs, Upper Salween.	1	46		
Pyinma logs ...	43	1,978		
Pyingado sleepers ...	140	485	184	2,509
Carried over ...	...	...	206,364 577	7,356,274 6,912

ANNUAL FORM No. 56 [PRESCRIBED].—*Account of Timber and other Produce cut or collected by Government Agency, &c.*—(continued).

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
TENASSERIM CIRCLE—(concluded).				
Brought forward ...	...	...	135,166	4,411,740
Number of Logs entered during 1885-86, viz.,—				
Foreign teak ...	130,110	5,854,950		
Foreign woods, other kinds	13	585		
British teak ...	1,979	59,370		
British woods, other kinds	381	9,525		
Number of drift logs brought to depot.	5,215	199,036	137,698	6,123,466
Received from the Forests and sold locally.				
Pyingado posts ...	1,319	6,366		
Pyingado pieces ..	140	163		
Pyingado spars ...	4	25		
Thingan spars ...	2	86		
Pyinma pieces ..	1	23		
Thingan pieces	1	36	1,467	6,699
Received by Conversion in Depôts.				
Teak scantlings ... Tons	57	2,846		
Pyinma scantlings ... "	15	779		
Padauk logs ends ...	7	...	79	3,625
Received by transfer from Kado Revenue Division.				
Drift logs ...	35	1,400	35	1,400
GRAND TOTAL .	...	...	2,74,445	10,546,930

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
TENASSERIM CIRCLE—(concluded).				
Brought forward ...	...	...	200,364	7,356,274
			577	6,912
Balance at close of the year—(concluded).				
Atarau Division. Padauk logs, ends and pieces.	220	3,860		
Pyinma logs .	7	166		
Ingyin logs .	26	796		
Thitka logs	6	330		
Sit logs ...	6	115		
Yamané logs ...	14	529		
Thitya logs ..	7	208		
Potwun logs ...	18	371		
Thingan logs ...	108	4,905		
Padauk planks tons.	1	52	413	11,392
South Tenasserim Division. Thitka ...	25	1,653		
Anan ...	10	316		
Kamaung ...	49	2,775		
Thingan ..	77	3,446		
Padauk ...	38	3,451		
Drift: Tagu .	1	20		
Drift: Thitshu ...	1	56		
Drift: Teak .	4	216		
Scantlings, 5½ inches by 2½ inches by 15 feet.	13	26		
Scantlings, 5 inches by 2½ inches by 10 feet.	20	17		
Scantlings, 4½ inches by 4 inches.	7	352		
Sleepers, small ...	375	600		
Sleepers, large ...	1,286	4,181	1,906	17,10
Drift timber ...	2,075	70,013		
Foreign teak ..	60,089	3,051,110		
Foreign woods, other kinds	56	2,195		
British teak ...	2,914	25,900		
British woods, other kinds	51	3,025	65,185	3,155,243
Total Balance ...	...	...	68,081	3,190,656
GRAND TOTAL ...	...	..	274,445	10,546,930

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
PEGU CIRCLE.				
Opening Balance.				
Prome—				
Teak logs ...	4	172		
Teak posts ...	92	2,300		
Teak drift logs ..	13	559		
Other kinds of logs ...	1	35	110	3,066
Tharrawaddy—				
Teak paddy-field ...	4,253	148,855		
Teak planks ...	696	...		
Teak scantlings ...	9	8		
Teak drift logs ...	5	230		
Other kinds of logs ...	12	420	4,975	149,513
Rangoon—				
Other kinds of logs ..	507	18,759	507	18,759
Toungoo—				
Teak logs ...	47	1,763		
Other kinds of logs ...	36	1,332		
Teak drift logs ...	8	344	85	3,439
Shwegyin—				
Teak sleepers ...	2,000	3,000		
Other kinds of sleepers	1,516	2,274		
Teak drift logs .	386	10,598		
Other kinds logs ...	323	11,305	4,225	33,177
Carried over ...	...	...	9,902	207,954

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
PEGU CIRCLE.				
Removed by purchasers from Depot.				
Teak logs ...	30,721	1,259,561		
Other kinds of logs ...	4,113	152,181		
Ditto sleepers ..	41,808	62,802		
Ditto blocks ...	100	...		
Ditto slabs ..	3,087	..		
Ditto planks ..	753	600		
Teak drift logs ..	472	19,352		
Other kinds of logs ..	19	665		
Other kinds of scantlings...	7,134	11,120	88,207	1,506,281
Sold locally.				
Teak logs ...	2,806	115,046		
Teak posts ...	206	5,150		
Teak paddy-field ...	154	5,390		
Other kinds of logs .	488	18,056		
Ditto sleepers ..	53,518	80,277		
Ditto scantlings	394	404		
Ditto slabs .	14	...		
Teak drift logs ...	421	16,840		
Teak scantlings ...	63	94		
Other kinds drift logs ...	6	210	58,070	241,467
Used, lost, &c.				
Teak logs ...	956	39,196		
Teak sea-drift ...	7	98		
Other kinds of logs ...	46	1,610	1,000	40,904
Carried over ...	...	..	147,346	1,788,652

ANNUAL FORM No. 56 [PRESCRIBED].—*Account of Timber and other Produce cut or collected by Government Agency, &c.*—(concluded).

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
PEGU CIRCLE—concld				
Brought forward ...	...	...	9,902	207,954
Opening balance.—concld.				
Western—				
Teak logs ...	856	15,308		
Other kinds of logs ...	201	7,437		
Do. slabs ..	1,776	..		
Do. sleepers ...	15,670	23,505		
Teak drift logs ...	75	3,225	18,078	49,475
Agency—				
Teak logs ...	32,288	1,339,240		
Teak sleepers ...	57	85		
Other kinds of logs ...	199	8,578		
Teak drift logs .	110	3,658		
Other kinds of logs ...	3	71	32,657	1,351,632
Total balance ...	...	..	60,637	1,609,061
Received from Forests by Extraction.				
Teak logs ...	24,167	990,847		
Teak posts ...	747	27,699		
Teak paddy field ...	6,637	232,295		
Teak planks ..	225			
Other kinds of logs ...	685	25,345	32,461	1,276,126
Received from Forests and sold locally.				
Teak logs ...	2,302	74,382		
Teak posts ...	206	7,622		
Teak paddy-field ...	154	5,390		
Teak refuse ...	521	13,025		
Other kinds logs ...	2	70		
Teak drift logs ..	8	320		
Teak slabs .	14	.		
Other kinds of drift sleepers	50,002	75,003		
Other kinds of scantlings ...	394	404	53,603	176,216
Drift collected in the various divisions and disposed of to claimants.				
Teak drift logs ...	20,330	833,530		
Teak drift scantlings ...	94	141		
Teak drift squares ...	4	100		
Teak sea-drift ..	10	410		
Other kinds of logs ..	150	5,250	20,588	839,431
Received into depôts from Forests.				
Teak logs ...	22,899	938,857		
Other kinds of logs ...	3,914	136,990		
Ditto sleepers ...	26,295	39,442		
Ditto slabs ...	6,027	...		
Ditto blocks ...	100	...		
Ditto planks ...	753	600		
Teak drift log ...	1,031	41,240		
Other kinds of logs ...	5	175	61,024	1,157,304
Collected by Agency				
Other kinds of sleepers ...	4,749	6,331		
Other kinds scantlings ...	7,134	11,120		
Teak drift logs ...	816	32,640		
Other kinds of logs ...	13	455	12,712	50,546
GRAND TOTAL			241,625	5,108,684

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
PEGU CIRCLE—concld.				
Brought forward ...	...	...	147,346	1,788,652
Returned to claimant.				
Teak drift logs ...	19,275	771,000		
Teak sea-drift ...	50	700		
Other kinds of drift logs ...	3	105	19,328	771,805
Converted in depôt.				
Other kinds ...	202	7,070	202	7,070
Transferred to depôt.				
Teak logs ...	23,703	971,823		
Other kinds of logs ..	505	17,675		
Teak drift logs .	965	38,600		
Other kinds of drift logs ...	14	490	25,187	1,028,588
Closing balance.				
Prome—				
Teak logs ...	342	14,022		
Teak posts ...	832	20,800		
Teak drift logs ...	30	1,200		
Teak squares ...	4	100		
Teak scantlings ..	31	46	1,239	36,168
Tharrawaddy—				
Teak paddy-field	10,800	375,508		
Teak planks .	921	.		
Teak drift logs ...	5	230		
Teak drift scantlings ..	9	8		
Other kinds of drift logs	12	420	11,837	376,226
Rangoon—				
Teak refuse logs	164	4,100		
Other kinds of logs ...	14	390	178	4,490
Toungoo—				
Teak logs ...	20	820		
Other kinds ...	90	3,330		
Teak drift logs ...	117	4,680	227	8,830
Shwegyin—				
Teak drift logs ...	336	13 440		
Other kinds of logs .	337	11,795	673	25,235
Western—				
Other kinds of logs ...	102	3,570		
Other kinds of sleepers	4,849	7,273		
Other kinds slabs and ends.	5,316	...		
Teak drift logs ...	119	4,760	10,386	15,603
Agency—				
Teak logs ...	24,822	1,038,281		
Other kinds of logs	99	5,544		
Teak sleepers .	54	81		
Teak drift logs ...	46	2,070		
Other kinds of logs ...	1	41	25,022	1,046,017
Total Balance ...	...	.	49,562	1,512,569
GRAND TOTAL			241,625	5,108,684

Annual Form No. 56A.—*Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during 1885-86.*

Particulars	Tenasserim circle		Pegu circle.		Total of each head	
	Number or quantity	Cubic feet	Number or quantity	Cubic feet.	Number or quantity	Cubic feet.
To opening balance	116,939	3,925,811	60,637	1,609,061	177 576	5,534,872
Received from forests in depots						
Teak logs, pieces, &c	15,426	412,853	22,899	938,857	38,325	1,351,710
Other kinds logs	1,359	70 503	3,914	136,990	5,273	207,493
Padauk branches	16	27			16	27
Other kinds sleepers	.	...	26,295	39,442	26,295	39,442
Ditto slabs	..	...	6,627	...	6,627	.
Ditto blocks		...	100	...	100	...
Ditto planks			753	600	753	600
Ditto sleepers, small	1,400	1 866	..		1,400	1,866
Ditto scantlings, 15′×5¼′×2¼	13	26	.		13	26
Teak drift logs	12	630	1,031	41,240	1,043	41,870
Other kinds drift logs	1	24	5	175	6	199
Total	18,227	485,929	61,624	1,157,304	79,851	1,643,233
Received from forests and sold locally						
Teak logs	.	..	2,302	74,382	2,302	74,382
Do posts	..	.	206	7,622	206	7,622
Do. paddy-field	...		154	5,390	154	5,390
Do refuse	...	..	521	13,025	521	13,025
Other kinds logs	..		2	70	2	70
Pyingado posts, pieces, and spars	1,463	6,554	.		1,463	6,554
Thingan spar pieces	3	122	.	.	3	122
Pyinma pieces	1	23	.	.	1	23
Teak drift logs	...	.	8	320	8	320
Ditto slabs	...	...	14	...	14	.
Other kinds scantings		.	394	404	394	404
Other kinds drift sleepers	.	..	50,002	75,003	50,002	75 003
Total	1,467	6,699	53,603	176,216	55,070	182,915
Received from forests by extraction.						
Teak logs	..	...	24,167	990 847	24 167	990 847
Do posts	...	..	747	27,639	747	27,639
Do paddy field	...	.	6,637	232 295	6,637	232,295
Do planks	...	...	225		225	
Other kinds logs	...	.	685	25,345	685	25,345
Total	.	..	32,461	1,276,126	32,461	1 276 126

Particulars	Tenasserim circle.		Pegu circle.		Total of each head.	
	Number or quantity	Cubic feet	Number or quantity	Cubic feet	Number or quantity	Cubic feet
Removed by purchasers.						
Teak logs, pieces, &c.	15,529	419,754	30,721	1,259,561	46,250	1,679,315
Other kinds logs	1,320	68,909	4,113	152,181	5,433	221,090
Padauk branches, log ends	156	165	.	.	156	165
Pyingado sleepers small	15,092	20 028	..	..	15,092	20,028
Other kinds sleepers	.	...	41 868	62,802	41,868	62,802
Ditto blocks		.	100	...	100	
Ditto slabs	.	...	3,087		3,087	...
Ditto planks	.		753	600	753	600
Teak drift logs	3,591	121 665	472	19,352	4,063	121 017
Other kinds logs	2	37	19	665	21	702
Ditto scantlings	...	..	7,134	11,120	7,134	11,120
Total	35,690	640,558	88,267	1,506,281	123 957	2,146,839
Sold locally						
Teak logs	...	..	2,806	115,046	2,806	115 046
Do posts	..		206	5,150	206	5,150
Do paddy field	...	.	154	5,390	154	5,390
Other kinds logs	..		488	18,056	488	18,056
Pyingado posts, pieces, spars	1,463	6,554	.	.	1,463	6,554
Thingan spar pieces	3	122	...	..	3	122
Pyinma pieces	1	23			1	23
Other kinds sleepers	..	.	53,518	80,277	53,518	80,277
Ditto scantlings	.		394	404	394	404
Ditto slabs	..	.	14	..	14	.
Teak logs, drift	...	.	421	16,840	421	16 840
Ditto scantings	...	...	63	94	63	94
Other kinds drift logs	...	.	6	210	6	210
Total	1,467	6,699	58,070	241 467	59,537	248,166
Used, lost, written-off						
Teak logs		.	956	39,196	956	39,196
Do sea drift			7	98	7	98
Do scantlings tons	54	2,711			54	2 711
Other kinds logs	17	527	46	1,610	63	2,137
Ditto scantlings	11	560	.	.	11	560
Total	82	3,798	1,009	40,904	1 091	44,702
Number of Logs cleared on payment of duty from depôt						
Foreign teak logs &c	162 066	6 482,640	..		162,066	6,482,640
British ditto	5,209	156 270		...	5 209	156,270
Foreign woods, other kinds	16	750	..	..	16	750
British ditto ditto	473	10,500	...	.	473	10,500
Total	167,764	6,650,160	..	..	167,764	6,650 160

Received by conversion in depots						
Teak scantlings ... ... Tons	57	2,846	...	..	57	2,846
Pyinma scantlings ... ... Tons	15	779	...	...	15	779
Padauk log ends	7	...	...	...	7	...
Total ...	79	3,625	...	...	79	3,625
Number of Logs entered during 1885-86.						
Foreign teak	130,110	5,854,950	...	...	130,110	5,854,950
British do.	1,979	59,370	...	...	1,979	59,370
Foreign woods, other kinds	13	585		..	13	585
British do. do. . .	381	9,525	...	...	381	9,525
Number of drift logs brought to depôt ...	5,215	199,036	...	.	5,215	199,036
Total ...	137,698	6,123,466	.	...	137,698	6,123,466
Received by transfer from Kado Revenue station.						
Drift logs	35	1,400		..	35	1,400
Drift collected in the various divisions, &c.						
Teak drift logs	..	...	20,330	833,530	20,330	833,530
Ditto scantlings	...	.	94	141	94	141
Ditto squares	...	...	4	100	4	100
Ditto sea drift	...	...	10	410	10	410
Other kinds logs	..	..	150	5,250	150	5,250
Total ...	.	..	20,588	839,431	20,588	839,431
Collected by Agency.						
Other kinds sleepers	...	...	4,749	6,331	4,749	6,331
Ditto scantlings	...	...	7,134	11,120	7,134	11,120
Teak drift logs	...	...	816	32,640	816	32,640
Other kinds drift	...	.	13	455	13	455
Total ...	...	...	12,712	50,546	12,712	50,546
GRAND TOTAL ...	274,445	10,546,930	241,625	5,108,684	516,070	15,655,614

Returned to claimants						
Teak drift logs	...	19,275	771,000	19,275	771,000
Do. sea drift	...	..	50	700	50	700
Other kinds drift	...	...	3	105	3	105
Number of logs	1,059	45,450	...	...	1,059	45,450
Total ...	1,059	45,450	19,328	771,805	20,387	817,255
Converted in depôts.						
Other kinds logs	31	1,043	202	7,070	233	8,113
Teak drift logs, pieces	164	4,286	...	...	164	4,286
Total ..	195	5,329	202	7,070	397	12,399
Transferred to						
Salween division	107	4 280	...	...	107	4,280
Transferred to depots.						
Teak logs	...	...	23,703	971,823	23,703	971,823
Other kinds logs	...		505	17,675	505	17,675
Teak drift logs	...	..	965	38,600	965	38,600
Other kinds logs	...	.	14	490	14	490
Total ...	...	...	25,187	1,028,588	25,187	1,028,588
Closing balance						
Foreign teak logs	60,069	3,054,110	...	...	60,069	3,054,110
British ditto	2,914	25,900		..	2,914	25,900
Teak logs	1	46	25,348	1,053,523	25,349	1,053,569
Do. sleepers	...	...	54	81	54	81
Do. planks	...	...	921	...	921	...
Do. scantlings	55	1,170	...	...	55	1,170
Do. posts	...	...	832	20,800	832	20,800
Teak paddy-field	...	...	10,890	379,268	10,890	379,268
Other kinds logs	779	27,800	291	12,444	1,081	40,634
Ditto Foreign	56	2,195	...	...	56	2,195
Ditto British...	51	3,025	...	..	51	3,025
Ditto sleepers	2,047	5,568	4,849	7,273	6,896	12,841
Ditto slabs and ends	...	..	5,316	..	5,316	..
Pyinma scantlings .. ... Tons.	4	219	...	...	4	219
Thingan boat-hulls	3	266	...	.	3	266
Other kinds planks ... ... Tons.	1	52	...	.	1	52
Teak drift logs	4	216	653	26,380	657	26,596
Do squares	...	...	4	100	4	100
Do. scantlings	...	...	40	54	40	54
Other kinds drift	...	...	364	12,646	350	12,256
Drift timber	2,077	70,089	...	..	2,077	70,089
Total ...	68,061	3,190,656	49,562	1,512,569	117,643	4,703,225
GRAND TOTAL ...	274,445	10,546,930	241,625	5,108,684	516,070	15,655,614

FORM No. 57.—*Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1885-86.*

Description of timber and other produce	On hand at commencement of the year.			On hand at close of the year.			Difference in value.		Remarks.
	Number.	Cubic feet	Value	Number.	Cubic feet.	Value.	In favour of the year	Against the year.	
Timber.			Rs.			Rs.	Rs	Rs.	
Logs, teak	233	9,833	7,421	1	46	36	. .	7,385	
Drift logs, teak	1,612	52,047	12,900	2,075	70,013	16,600	3,700	...	
Logs (woods, other kinds)	924	28,180	13,000	786	28,358	14,613	1,613	..	
Sleepers	15,739	23,730	25,576	2,047	5,568	5,571	..	20,005	
Scantlings	40	1,061	743	60	1,441	1,091	348	...	
Foreign teak	92,045	3,681,800	18,40,900	60,089	3,054,110	12,01 780	...	6,39,120	
Foreign woods (other kinds)	59	2,360	826	56	2,195	560	.. .	266	
British teak (leased forests)	6,144	192,800	24,576	2,914	25,900	14,570	...	10,006	
British woods (other kinds leased forests)	143	4,000	2 002	51	3,025	510	...	1 492	
Total Tenasserim Circle Timber	116,939	3,925,811	19,27 944	68,081	3,190,656	12,55,331	. ..	6,72,613	
Timber									
Teak logs	32,689	1,356,483	7,80,717	25,184	1,049,423	5,35,445	...	2,45,282	
Do paddy field	4,253	148,855	17,012	10,890	379 268	43,560	26 548		
Do refuse	... .	.. .	.. .	164	4,100	1,457	1,457	. ...	
Do posts	92	2,300	736	832	20,800	2,496	1,760	. ..	
Do sleepers	2,057	3,085	3,278	54	81	27	. .	3,251	
Do scantlings	9	8	8	9	8	8	.. .	.. .	
Do planks	696	....	174	921	...	194	20	.	
Other kinds, logs	943	36,106	11,316	291	12,444	6,916	... .	4,400	
Do sleepers	17,186	25,779	27,927	4,849	7,273	7 273	.....	20 654	
Do slabs and ends	1,776	.	50	5,316	.	150	100	...	
Teak drift, logs	597	24,614	14 925	657	26,480	16,425	1,500	.	
Do scantlings	... .	..	. ...	31	46	62	62	. . ..	
Other kinds, drift logs	339	11,831	4,068	364	12,646	4,368	300	... .	
Total Pegu Circle Timber	60,637	1,609,061	8 60,211	49,562	1,512,569	6,18,371		2,41,840	

Net difference against the year Rs. 9,14,453.

Dr. ANNUAL FORM No. 59 [PRESCRIBED].—*Account-current for the year 1885-86.* Cr.

TENASSERIM CIRCLE.	Rs. A. P.	Rs. A. P.
To cash balance	.....	6,715 9 7
Revenue as per Annual Summary, Form No. 58	.....	4,19,242 13 3
To Service Funds—		
Military Fund, Madras	517 9 0	
Military Orphan Fund, Madras	20 0 0	
Uncovenanted Service Family Pension Fund, Bengal	1,183 8 0	
		1,721 1 0
To Deposits	.....	100 0 0
To Forest Cash Remittances (local)—		
Forest cheques drawn	2,88,904 15 5	
Inter-divisional transfers	.....	
		2,88,904 15 5
To Advances recoverable	.....	1,42,387 4 1
To INTER DEPARTMENTAL TRANSFERS.		
To Civil Department—		
Jail	768 6 1	
Law and Justice	1,194 0 0	
		1,962 6 1
Total Tenasserim ...	.....	8,61,034 1 5

TENASSERIM CIRCLE.		Rs. A. P.	Rs. A. P.
By Expenditure as per Annual Summary, Form No. 58		.....	3,18,515 2 6
„ Deposits		.....	100 0 0
By Forest Cash Remittances (local)—			
Remittances to treasuries		3,05,542 14 5	
Interdivisional transfers		.....	
			3,05,542 5
By Advances recoverable		.....	1,19,151 15 6
By Account current (other Governments)—			
Government of India		.....	28,316 7 0
By Inter-departmental transfers—			
Public Works Department, other branches		525 8 0	
Military Department, Madras		19,026 3 5	
Ditto ditto, Bombay		44,306 6 8	
By Civil Department—	Rs. A. P.		
Jail	7,235 5 6		
Miscellaneous	2,695 6 5		
		9,930 11 11	
Telegraph Department		15,029 0 0	
			88,817 14 0
By Cash balance		.....	587 12 0
Total Tenasserim ...		.....	8,61,034 1 5

J. TAYLOR,
Assistant Comptroller-General (Forests).

Dr. ANNUAL FORM No. 59 PRESCRIBED].—*Account-current for the year 1885-86.* Dr.

PEGU CIRCLE.	Rs. A. P.	Rs. A. P.
To Opening balance	.....	4,068 14 6
„ Revenue as per Annual Form No. 58	.....	15,54,616 2 10
To Service Funds—		
Uncovenanted Service Family Pension Fund, Bengal	.....	753 11 0
To Forest Cash Remittances (local)—		
Forest cheques drawn	8,17,754 11 11	
Inter-divisional transfers	94,481 4 6	9,12,236 0 5
To Advances recoverable	.....	3,15,731 15 8
„ Suspense	.....	33 11 0
To Account-current (other Governments)—		
Government of India	.....	3,133 9 11
To Inter-departmental Transfers—		
Military Department, Bengal	467 14 11	
Ditto, Madras	191 11 6	
To Civil Department—		
Jail	2,872 13 0	3,532 7 5
Total Pegu	.....	27,94,106 8 9

PEGU CIRCLE.	Rs. A. P.	Rs. A. P.
By Expenditure as per Annual Form No. 58.	.....	8,32,437 13 4
By Forest Cash Remittances (local)—		
Remittances to treasuries	12,17,896 0 7	
Inter-divisional transfers	94,369 4 6	13,12,265 5 1
By Advances recoverable	.....	3,05,295 7 3
„ Suspense	.....	2 0 0
By Account-current (other Governments)—		
Government of India	75,479 6 9	
Government of Madras	65,000 0 0	1,40,479 6 9
By Inter-departmental transfers—		
P. W. D., State Railway, Burma State Railway	7,986 0 0	
Ditto, other branches	82 1 3	
Ditto, Madras	1,54,036 14 10	
Military Department, Madras	359 2 2	
By Civil Department—		
Jail	8,328 0 0	
Cinchona plantation charges	962 0 3	
Miscellaneous	91 14 0	
Telegraph Department	284 8 0	1,72,130 8 6
By Account between Civil and Guaranteed Railways—		
Madras Railway	.....	30,000 0 0
By Closing balance	.....	1,495 15 10
Total Pegu	.....	27,94,106 8 9

J. TAYLOR,
Assistant Comptroller-General (Forests).

Annual Form No. 59A.—*Account-current for the year 1885-86.*

	Tenasserim circle.	Pegu circle.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
To Opening Balance	6,715 9 7	4,068 14 6	10,784 8 1
Revenue as per Annual Form No. 58	4,19,242 13 3	15,54,616 2 10	19,73,859 0 1
Service Funds—			
Military Fund, Madras	517 9 0	.....	517 9 0
Military Orphan Fund, Madras...	20 0 0	.....	20 0 0
Uncovenanted Service Family Pension Fund, Bengal	1,183 8 0	753 11 0	1,937 3 0
Forest Cash Remittances (local)—			
Forest cheques drawn	2,88,904 15 5	8,17,754 11 11	11,06,659 11 4
Inter-divisional transfers	.....	94,481 4 6	94,481 4 6
Advances recoverable..	1,42,387 4 1	3,15,731 15 8	4,58,119 3 9
Suspense	.....	33 11 0	33 11 0
Inter-departmental Transfers—			
Military Department, Bengal	...	467 14 11	467 14 11
Military Department, Madras	...	191 11 6	191 11 6
Civil Department—			
Jail	768 6 1	2,872 13 0	3,641 3 1
Law and Justice	1,194 0 0	....	1,194 0 0
Account-current other (Governments)—			
Government of India	.....	3,133 9 11	3,133 9 11
Deposits	100 0 0	.....	100 0 0
Total ...	8,61,034 1 5	27,94,106 8 9	36,55,140 10 2

	Tenasserim circle.	Pegu circle.	Total.
	Rs A. P.	Rs. A P.	Rs. A. P.
By expenditure as per annual Form No. 58	3,18,515 2 6	8,32,437 13 4	11,50,952 15 10
Deposits	100 0 0	.....	100 0 0
Forest Cash Remittances (local)—			
Remittances to treasury	3,05,542 14 5	12,17,896 0 7	15,23,438 15 0
Inter-divisional transfer	.....	94,369 4 6	94,369 4 6
Advances recoverable	1,19,151 15 6	3,05,295 7 3	4,24,447 6 9
Suspense	.....	2 0 0	2 0 0
Account-current other (Governments)—			
Government of India	28,318 7 0	75,479 6 9	1,03,797 13 9
Government of Madras	.....	65,000 0 0	65,000 0 0
Inter-departmental Transfers—			
Public Works Department, other branches	525 8 0	82 1 3	607 9 3
Ditto State Railways—Burma State Railway ..	.....	7,986 0 0	7,986 0 0
Public Works, Department, Madras..	.....	1,54,036 14 10	1,54,036 14 10
Military Department, Madras	19,026 3 5	359 2 2	19,385 5 7
Ditto ditto, Bombay	44,306 6 8	.....	44,306 6 8
Civil Department—			
Jails	7,235 5 6	8,328 0 0	15,563 5 6
Miscellaneous	2,695 6 5	91 14 0	2,787 4 5
Telegraphs	15,029 0 0	284 8 0	15,313 8 0
Cinchona charges	.....	962 0 3	962 0 3
Account between Civil and Guaranteed Railways—			
Madras Railway...	.....	30,000 0 0	30,000 0 0
Closing balance ...	587 12 0	1,495 15 10	2,083 11 10
Total ...	8,61,034 1 5	27,94,106 8 9	36,55,140 10 2

ANNUAL FORM No. 60 [PRESCRIBED].—*Revenue received and Outstandings on account of Revenue during 1885-86.*

Division.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total	Amount realized during year	Balance due to the department at end of year.	Remarks
		Rs A. P	Rs. A P	Rs A P	Rs A. P	Rs A. P	
SALWEEN	Timber and other produce, &c.	5,606 8 0	3,04,105 3 3	3,09,711 11 3	2,87,789 5 11	21,922 5 4	The outstanding is made up of Rs 21,793 due by the Gun Carriage Factory, Madras, for timber supplied and which owing to the absence of provision in the factory budget could not be met and Rs 129 the balance due by a trader, for purchase of timber at the last sale held at Battery Point.
KADO . .	Drift logs, teak, &c	1,572 0 0	83,224 2 10	84,796 2 10	84,796 2 10	.. .	
SOUTH TENASSERIM ...	Timber and other produce, &	... ..	46,657 4 6	46,657 4 6	46,657 4 6	.. ...	
	Total Tenasserim Circle ...	7,178 8 0	4,33,986 10 7	4,41,165 2 7	4,19 242 13 3	21 922 5 4	
PROME . ..	Timber and other produce, &c	...	68,130 7 1	68,130 7 1	68,130 7 1	.. ...	
THARRAWADDY ...	Ditto do.	..	42,109 5 6	42,109 5 6	42,109 5 6	. . .	
RANGOON	Ditto do.	. ...	1,72,047 2 1	1,72,047 2 1	1,72,047 2 1	...	
TOUNGOO	Ditto do.	. .	55,657 9 3	55,657 9 3	55,657 9 3	...	
SHWEGYIN . .	Ditto do	.	49,922 14 7	49,922 14 7	49,922 14 7	. ..	
WESTERN	Ditto do.	60 8 0	99,229 11 4	99,290 3 4	91 460 14 9	7,829 4 7	
AGENCY	Ditto do.	11,972 10 0	11,14,825 12 11	11,26,798 6 11	10,75,287 13 7	51,510 9 4	
	Total Pegu Circle .	12,033 2 0	16,01,922 14 9	16,13 956 0 9	15 54,616 2 10	59,339 13 11	
	GRAND TOTAL LOWER BURMA ...	19,211 10 0	20,35,909 9 4	20,55,121 3 4	19,73,859 0 1	81,262 3 3	

ANNUAL FORM No. 61 [PRESCRIBED].—*Statement of Outstandings and Liabilities on account of Contractors and Disbursers for 1885-86.*

Division	Department Debtor			Department Creditor			Balance due		Remarks
	At commencement of year	Recoveries in cash and value of supplies and work done during the year	At close of year	At commencement of year	Payments made during year	At close of year	To department (outstandings)	By department (liabilities).	
	Rs A P	Rs A P	Rs A P	Rs. A. P	Rs A P	Rs A P	Rs A P	Rs A P	
Salween	.....	1,25,248 5 10	1,25,248 5 10	1,20,801 12 1	1,05,759 0 3	2,26,560 12 4	1 01,312 6 6	.. ..	
Kado revenue station	..	14 111 0 11	14,111 0 11	1,386 12 6	13,342 15 3	14,729 11 9	618 10 10	. ..	
South Tenasserim	.....	3,027 13 4	3,027 13 4	2,977 13 4	50 0 0	3,027 13 4	.	.....	
Total Tenasserim Circle	..	1 42,387 4 1	1,42,387 4 1	1,25,166 5 11	1,19,151 15 6	2,44,318 5 5	1,01,931 1 4	.	
Government Timber Depôt and Agency Office	3 0 0	10,826 11 10	10,829 11 10	5,413 5 10	7,368 1 4	12,781 7 2	1,951 11 4	.	
Rangoon	150 0 0	87 767 12 10	87,917 12 10	12,815 6 0	80,694 13 8	93,510 3 6	5,742 6 8	150 0 0	
Tharrawaddy	...	1,59,331 6 2	1,59,331 6 2	32,489 6 8	1 52 534 12 4	1,85,024 3 0	25,692 12 10	.	
Prome	.	18,025 10 3	18,025 10 3	92 15 9	26,524 15 9	26,617 15 6	8,592 5 3	.. ..	
Western	...	14,253 13 7	14,253 13 7	18,182 2 1	8 949 1 1	27,131 3 2	12 877 5 7	. .	
Toungoo	..	20,716 9 0	20,716 9 0	1,593 14 8	24,563 11 3	26,157 9 11	5,441 0 11	. .	
Shwegyin	.....	4,810 0 0	4,810 0 0	150 0 0	4,660 0 0	4,810 0 0	...	. .	
Total Pegu Circle	153 0 0	3,15 731 15 8	3,15,884 15 8	70 737 3 0	3,05,295 7 3	3,76,032 10 3	60,297 10 7	150 0 0	
GRAND TOTAL LOWER BURMA	153 0 0	4,58,119 3 9	4,58,272 3 9	1,95,903 8 11	4,24,447 6 9	6,20 350 15 8	1,62,228 11 11	150 0 0	

CALCUTTA :
The 21st June 1886.

J. TAYLOR,
Assistant Comptroller General (Forests).

ANNUAL FORM No. 62 [PRESCRIBED].—*Statement showing the Financial Results in the Tenasserim and Pegu Circles for 1885-86.*

Division.		Timber and other produce removed from the forests by Government Agency.		Other revenue.		Formation, protection and improvement of forests.	Total.		Remarks.
		Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
		Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs.	
TENASSERIM ...	Salween	20,528	19,479	4,471	1,386	4,814	24,999	25,679	
	East Salween	1,67,318	1,00,284	1,653	894	8,706	1,68,971	1,09,884	
	West Salween	24,965	22,690	449	326	7,503	25,414	30,519	
	Ataran	55,376	35,820	13,029	6,721	7,139	68,405	49,680	
	South Tenasserim	28,826	24,244	17,832	8,186	6,890	46,658	39,320	
	Kado	.		64,796	63,433	...	84,796	63,433	
	Total Tenasserim ...	2,97,013	2,02,517	1,22,230	80,946	35,052	4,19,243	3,18,515	
PEGU	Prome	1,75,212	34,963	62,020	12,741	13,536	2,37,232	61,240	
	Tharrawaddy	4,28,059	1,68,981	41,184	18,609	49,519	4,69,243	2,37,109	
	Rangoon	2,79,121	1,87,049	28,431	15,843	22,459	3,07,552	2,25,351	
	Toungoo	3,53,482	1,64,233	6,537	5,525	16,036	3,60,019	1,85,794	
	Shwegyin	52,852	36,375	16,468	4,578	4,749	69,320	45,702	
	Western	77,495	54,056	16,740	7,085	6,052	94,235	67,193	
	Agency	13,205	10,049	3,810	..	...	17,015	10,049	
	Total Pegu ..	13,79,426	6,55,706	1,75,190	64,381	1,12,351	15,54,616	8,32,438	
	GRAND TOTAL LOWER BURMA ...	16,76,439	8,58,223	2,97,420	1,45,327	1,47,403	19,73,859	11,50,953	

APPENDIX A.

Statement exhibiting the Cost of Feed of Elephants of the Forest Department for the official year 1885-86, as compared with that of the Commissariat Department for the same period.

Division.	Number of elephants at commencement of the year.	Casualties during the year.	Number of elephants at close of the year.	Cost of feed.	Cost of keep, including gear, &c.	Cost of medicine.	Total expenditure for the year	Average monthly cost per animal of the Forest Department.	Average monthly cost per animal of the Commissariat Department.	Amount paid by officers for carriage elephants.	Value of labour in cash receipts and work performed.	Remarks.
				Rs A. P	Rs. A. P.	Rs. A. P	Rs. A. P.	Rs A. P	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Salween	3	...	3	897 13 8	623 0 0	36 0 0	1,556 13 8	32 14 9	42 7 0	.....	1,807 0 0	
East Salween	2	1	1	.....	272 0 0*	1 0 0	273 0 0			.....	256 0 0	* Includes Rs. 30 paid for capturing female elephant which had bolted for several days.
West Salween	1	...	1	.....	312 0 0	....	312 0 0			.....	426 0 0	
Ataran	2	...	2	.....	624 0 0	.	624 0 0			.....	482 0 0	Elephant Pa Lomai died on the 15th July 1885 and was struck off the list under Chief Commissioner's sanction, No. 404-17B, dated the 20th October 1885.
Total Tenasserim ..	8	1	7	897 13 8	1,831 0 0	37 0 0	2,765 13 8	32 14 9	42 7 0	..	2,971 0 0	
Prome	2	1	2	.....	590 0 0	11 14 9	601 14 9	35 12 1	37 7 7	.....	1100 0 0	
Tharrawaddy	11 (a)	...	9 (a)	.....	2,676 0 4	81 9 0	2,757 9 4			.....	3,907 0 0	(a) Includes a calf
Rangoon	3	...	3	3 0 0	900 3 2	..	903 3 2			..	1,024 0 0	
Toungoo	5	1	4	.....	1,120 4 0	17 0 0	1,137 4 0			...	1,864 0 0	
Shwegyin	2	...	2	.....	646 0 0	5 8 0	651 8 0			..	875 0 0	
Western	5	2	4	76 11 9	1,027 4 6	4 0 0	1,108 0 3			.....	1,112 0 0	
Agency	12	..	12	4,185 0 10	5,031 1 11	230 0 0	9,446 2 9			..	29,302 0 0	
Total Pegu ...	40 (a)	4	36 (a)	4,264 12 7	11,990 13 11	349 15 9	16,605 10 3	35 12 1	37 7 7	..	39,184 0 0	(a) Includes a calf
GRAND TOTAL LOWER BURMA ...	48	5	43	5,162 10 3	13,821 13 11	386 15 9	19,371 7 11	...	.....	....	42,155 0 0	

APPENDIX B.

Lower Burma.

List of Buildings of which the Cost exceeds Rs. 200 and for occupation of which no Rent is paid.

Division.	No.	Name of building.	Station.	Remarks
Salween ...	1	Forest office .	Moulmein.	
	1	Elephant-shed	Do.	
	1	Pe[illegible] shed ..	Do.	
East Salween .	1	Bungalow	Kawkareik	
	1	Rest house	Gyaing on the Haungtharaw.	
	1	Guard-house	Gyaing.	
West Salween .	1	Bungalow	Papun.	
Ataran	1	Rest-house	Natchaung.	
	1	Guard-house	Martaban.	
Kado ...	5	Guard-houses	Moulmein.	
	8	Office and two out-houses ...	Kado.	
	1	Lascar's house	Do.	
	1	Upper guard-house ...	Do.	
	1	Lower guard-house ..	Do.	
	1	Guard-house	Nantè.	
	1	Coal-shed	Battery Point	
	1	Bungalow	Shwegun.	
	1	Office	Mergui.	
	1	Guard-house	Tavoy.	
		(b)—On which rent is paid.		
East Salween ...	1	Bungalow	Kawkareik.	
		(a)—On which no rent is paid.		
Tharrawaddy ...	1	Forest office	Tharrawaddy.	
	1	Forest bungalow	Paungdè.	
	16	Rest-houses	Kangyi, Yôksaing Gyobinaing, Segangalè, Bawbin, Waing, Wè, Seywa, Kyaunglaungdaing, Kwingyi, Kywemakaing, Thèmè, Yetho, Kyun, Myoda, Kainggwin.	
Rangoon ...	1	Forest office	Pegu.	
	3	Revenue stations	Tawletè, Awing, Hlègu.	
	2	Rest-houses	Palôn, Kinpadi.	
Prome ...	2	Rest-houses	Kadinngazin, Taungalè	
Shwegyin ...	1	Rest-house	Myitkyo.	Destroyed by dacoits
	1	Overseer's house		
	1	Bungalow	Chaungzauk.	
Toungoo ...	1	Forest office	Toungoo.	
	6	Rest-houses	Tabetkwe, Zibyubin, Pathichaung, Banbwebin, Minye, Pyunchaung.	Pyunchaungs rebuilt to replace one burnt last year.
Depôt and Agency ...	1	Central depôt	Kemmendine, Rangoon.	
	1	Overseer's quarters ...		
	6	Guard-houses		
	1	Mahout's quarter... ...		
	1	Elephant-shed		
	1	Seasoning-shed		
		(b)—On which rent is paid.		
Prome ..	1	Forest office	Prome.	
Tharrawaddy ...	1	First class bungalow ...	Tharrawaddy.	
Toungoo ...	1	Ditto ...	Toungoo.	
Shwegyin ...	1	Forest officer's quarters ...	Shwegyin.	

APPENDIX C.

Statement showing the Exports of Timber and other Forest Produce from the Port of Rangoon during the official year 1885-86 (Private and Government).

Articles and countries to which exported.		Rangoon. Quantities.	Rangoon. Value.
Wood—			Rs.
Teak—			
To United Kingdom ...	C. Tons	16,364	18,12,850
" Malta ...	"	5	600
" Egypt, Port Said ...	"	2,307	2,00,603
" Ceylon ...	"	2,375	2,11,400
" Straits Settlements ...	"	117	11,224
" Victoria ...	"	775	76,750
" Bengal, Calcutta ...	"	12,127	8,70,755
" Do., other ports ...	"	156	10,433
" Bombay, Bombay ...	"	17,510	12,18,265
" Sind, Karachi ...	"	1,000	1,37,500
" Madras, Madras ...	"	8,941	6,68,793
" Do., other ports ...	"	890	77,765
" Provincial ports ...	"	167	13,552
" Pondicherry ...	"	12	650
" Kattywar, Jamnagar ...	"	22	1,100
Total ...		63,368	53,72,380
Other timber—			
To United Kingdom ...	Tons	4	400
" Egypt, Port Said ...	"	6	250
" Bengal, Calcutta ...	"	31	750
" do., other ports ...	"	13	880
" Bombay, Bombay ...	"	29	690
" Madras, other ports ...	"	105	7,100
" Provincial ports ...	"	8¼	191
" Kattywar, Jamnagar ...	"	50	1,000
Total ...		246¼	11,261
Manufactures of—			
Teak shingles—			
To Straits Settlements ...	No.	1,14,000	2,070
" Bengal, other ports ...	"	11,500	181
" Provincial ports ...	"	5,000	75
Total ...		1,30,500	2,326
Sandalwood—			
To Provincial ports ...	Value	.....	299
Railway Plant and Rolling-stock—			
Materials for construction—			
To United Kingdom ...	Cwt.	580	1,000
Jungle wood sleepers—			
To Bengal, Calcutta ...	Cwt.	4,830	16,059
" Bombay, Bombay ...	"	10	30
" Madras, Madras ...	"	90,135	3,12,934
Do., other ports ...	"	4,990	15,737
Total ...		99,965	3,44,760
Gums and Resins—			
To cutch and gambier—			
To United Kingdom ...	Cwt.	95,361	11,05,310
" Germany, Hamburg ...	"	2,050	24,900
" Egypt, Port Said ...	"	18,805	2,28,381
" St. Helena ...	"	19,175	1,91,750
" Ceylon ...	"	2,140	22,100
" China, Hongkong ...	"	1,607	15,000
" do., treaty ports ...	"	13	104
" Straits Settlements ...	"	9,541	1,03,893
" Bengal, Calcutta ...	"	55,374	7,70,083
" Do., other ports ...	"	3	35
" Bombay, Bombay ...	"	14,310	1,45,100
" Madras, Madras ...	"	1,059	15,672
" Do., other ports ...	"	503	8,105
" Provincial ports ...	"	256	4,032
Total ...		2,20,257	26,35,015
Lac—			
Stick—			
To Straits Settlements ...	Cwt.	438	6,015
" Bengal, Calcutta ...	"	1,459	21,972
" Bombay, Bombay ...	"	11	158
" Madras, Madras ...	"	490	8,260
" Do., other ports ...	"	809	13,390
" Provincial ports ...	"	154	2,775
Total ...		3,361	52,570
Oils—			
Wood—			
To Egypt, Port Said ...	Gallons	354	262
" China, treaty ports ...	"	224	320
" Straits Settlements ...	"	97	195
" Bengal, Calcutta ...	"	267	300
" Madras, Madras ...	"	8,255	7,625
" Do., other ports ...	"	567	525
Total ...		9,764	8,928

APPENDIX C.

Statement showing the Imports of Timber and other Forest Produce into the Port of Rangoon during the official year 1885-86 (Private and Government).

Articles and countries from which imported.		Rangoon. Quantities.	Rangoon. Value.
			Rs.
Wood—			
Teak—			
From Provincial ports ...	C. Tons	1,075	91,802
Other timber—			
From United Kingdom ...	Tons	4	277
" Straits Settlements	"	114	4,086
" Bombay, Bombay	"	1	50
" Provincial ports ...	"	304	12,527
Total ...		423	16,937
Firewood—			
From Siam ...	Tons	38	380
" Straits Settlements	"	104	1,309
" Provincial ports ...	"	8	150
Total ...		150	1,839
Sandalwood—			
From Straits Settlements	Value	.....	915
" Bengal, Calcutta ...	"	.....	3,700
" Do., other ports	"	.....	30
" Bombay, Bombay	"	.....	5,421
" Madras, Madras ...	"	.....	570
" Provincial ports ...	"	.....	466
Total ...		.....	11,102
Manufactures of—			
Teak shingles—			
From Provincial ports ...	No.	1,516,350	20,400
Teak crooks—			
From Provincial ports ...	Value	.....	306
Railway plant and rolling-stock. Materials for construction—			
Jungle wood sleepers—			
From Provincial ports ...	Cwt.	640	1,247
Gums and resins—			
Cutch and gambier—			
From Straits Settlements	Cwt.	31	372
" Bengal, Calcutta ...	"	10¼	202
" Provincial ports ...	"	9	112
Total ...		50¼	746
Lac—			
Stick—			
From Bengal, Calcutta ...	Cwt.	2	60
" Madras, Madras ...	"	2	16
Total ...		4	76
Oils—			
Wood—			
From Straits Settlements	Gallons	821	1,152
" Provincial ports ...	"	17,973	4,575
Total ...		18,794	5,727

APPENDIX C (1).

Statement showing the Exports of Teak Timber from Moulmein during 1885-86.

Ports.	Moulmein. Logs.	Moulmein. Cubic tons.	Moulmein. Value.
			Rs.
United Kingdom ...	...	20,169	23,65,700
Malta ...	...	414	48,690
Spain (Cadiz) ...	...	412	51,487
Egypt (Port Said) ...	...	2,682	3,09,088
Mauritius ...	...	605	29,894
Ceylon ...	...	74	3,694
Straits Settlements ...	...	19	775
Bengal (Calcutta) ...	...	15,639	12,31,945
Do. (other ports) ...	...	371	22,597
Bombay (Bombay) ...	...	49,379	22,63,244
Madras (Madras) ...	...	7,895	5,54,514
Do (other ports) ...	...	5,549	2,78,022
Provincial ports ...	...	1,190	1,01,429
Pondicherry ...	...	876	52,846
Karikal ...	...	6	235
Total ...	...	105,240	83,09,160

APPENDIX C (2a).

Statement showing the Exports of Shingles, Sleepers, Railway Keys and Woods of other kinds from Moulmein during 1885-86.

Articles.	Whither exported.		From Moulmein. Quantity.	From Moulmein. Value.	Remarks.
				Rs	
Other timber ...	Bengal (Calcutta) ...	Tons	2,088	1,17,013	
	Do. (other ports) ..	"	48	2,503	
	Bombay (Bombay) ...	"	566	50,477	
	Madras (Madras) ...	"	75	6,290	
	Provincial ports ...	"	434	14,674	
Teak shingles ...	Mauritius ...	No.	1,729,750	22,487	
	Straits Settlements ...	"	160,000	2,375	
	Bengal (Calcutta) ...	"	672,750	11,791	
	Provincial Ports ...	"	1,497,000	19,732	
Teak crooks ...	Provincial Ports ...	Value	...	306	
Teak staves ...	Colombo ...	Value	...	14,977	
Teak ventilators ...	Egypt (Port Said) ...	Value	...	1,871	
Other timber ventilators ...	United Kingdom ...	Value	...	942	
	Malta ...	"	...	994	
	Egypt (Port Said) ...	"	.	2,995	
Teak, railway keys	Bengal (Calcutta) ...	Cwt.	5,234	11,378	
	Bombay Bombay) ...	"	5,294	14,764	

APPENDIX C (2b).

Statement showing the Exports of Boat Hulls and other Timber from the Port of Tavoy during 1885-86.

Articles.	Whither exported.		Tavoy. Quantity.	Tavoy. Value.	Remarks.
				Rs.	
Boat hulls	... Provincial ports ...	No.	24	25,500	
Other woods	... Do. do. ...	"	769	36,083	

APPENDIX C (3).

Statement showing the Exports of Minor Forest Produce from the Ports of Mergui, Tavoy and Moulmein during 1885-86.

Articles.	Whither exported.		From Moulmein. Quantity.	From Moulmein. Value.	From Tavoy. Quantity.	From Tavoy. Value.	From Mergui. Quantity.	From Mergui. Value
				Rs.		Rs.		
Gums and rosins ...	Provincial ports ...	Cwt.	6	112	...	...		
	Madras (Madras) ...	Galls.	240	120	...	...		
	Do. (other ports) .	"	256	210	...	...		
	Provincial ports ...	"	112	70	..	...		
Bark of trees for tanning	Ditto ...	Cwt.	...	...	3,207	561		
Ongdôn bark	Ditto ...	"	...	...	43	611		
Sandal-wood	Ditto ...	"	...	...	69	373		
Firewood	Ditto ...	Tons	...	...	46	186	No details received	
Cardamoms	Ditto ...	lbs	...	...	24,364	12,247		
Kanyin fruit	Ditto ...	Bkts.	...	...	461	346		
Chestnuts (thitkyathi) ...	Ditto ...	Bags	...	...	14	42		

APPENDIX C (4).

Statement showing the Imports of Timber and other Forest Produce during the year 1885-86 into the Ports of Mergui, Tavoy, and Moulmein.

Articles.	Whence imported		Into Moulmein. Quantity.	Into Moulmein. Value.	Into Tavoy. Quantity.	Into Tavoy. Value.	Into Mergui. Quantity.	Into Mergui. Value.
				Rs.		Rs.		Rs.
Teak timber including shingles.	Provincial ports ...	Tons	...	...	11	703	...	...
Sandal-wood	Ditto ...	Cwt.	...	...	4	30	...	...
Wood-oil	Ditto ...	Galls.	...	...	508	152	...	...
Firewood	Ditto ...	Tons	...	...	36	190	.	..
Fibre for cordage ...	Ditto ...	Cwt.	...	...	181	498	...	...
Dammer torches ...	Ditto ...	No.	...	...	1,500	45		...

APPENDIX D.

TENASSERIM CIRCLE.

Statement of Teak and other Trees Girdled and Forest Work done in season 1885-86.

Name and No of section.	By whom girdled	Name of revising officer	Forest district.	Locality.	Teak.	Padauk	Trees counted by revising officer	Remarks
1 2 3 4 5 6	Forest-Ranger Maung Shwe Ka	Colonel W. J. Seaton, Conservator of Forests.	Ônkangyi reserve ...	Between Yea Win and Ônkanglè chaungs ... ... Between Ônkanglè and Ônkangyi chaung .. ... . Between Nwahgyi and Nwahglè chaung ... ... On the east of Nwahgyi chaung . ... To the west of Ko Tu's village . ... To the east and south of Ko Tu's paddy-field	113 428 57 304 13 85	... ...	.. .. 111	BLOCK IV. *West Salween Division.* The results of the Conservator's revision survey in tracts west of Ko Tu's village and tracts, north of and along the Ônkanglè chaung Girdled trees ... 111 I Class trees ... 120 II Class trees .. 104 III Class trees ... 184
7 8 9 10	Mr T. A Hauxwell, Deputy Conservator of Forests.	Mr. T. A Hauxwell, Deputy Conservator of Forests.	Ônkartin and Gawlè reserves, and outside of reserves.	The east bank of the Dèlan chaung, and eastward along both banks of the Ônkarein, as far east as the Pathagwe chaung The sources of the Mawphè and Ma Wa . ... The Huthè stream near its junction with the Ônkôk stream and both banks of the Ônkôk. The eastern extremity allotted to Karens on the Pawpi stream .	521 163 270 146	... ...	... ...	BLOCK I. *East Salween Division.* Inside reserves .. 936 Outside reserves ... 170 Total Teak trees .. 1,100
11 12 13 14	Tha Gya and Shwe U	.....	Haungtharaw forests ...	Block I .. Imgalan chaung ... . Migathan ... . Tipopatan .. . . Yebu tributary of the Misan chaung ..	... ...	13 10 25 102	.. ..	On the 19th and 20th January 1886, the Conservator inspected the girdling work carried on in the Lower Salween forests in 1885, by Forest Ranger Maung Shwe Ka. Five girdled trees near Mongkanine. Four girdled trees near Kyaukpyakwin. One girdled tree north-east of Tazinlôn In.
15 16 17 18 19 20 21 22	Mr G H Barnard, Assistant Conservator of Forests. Ti Tu, girdling writer.	Mr. G H Barnard Assistant Conservator of Forests.	Outside the Natchaung and Gwingyi reserves.	North of the Natchaung and on its tributaries, the Thama Li and Thama Ka Li chaungs. South of the Natchaung below the Taungchiyin path .. ... On the Empathwè chaung, feeder of Gwinglè chaung, east of the Natchaung village and Kauni path On the Wadaindaw and Tipopayi chaung, feeder of the Empathwe chaung On the Gwingle chaung .. .. At the sources of the Tipopayi chaung .. .. At the sources of a feeder of the Tike chaung ... ... On and near the sources of the Tikat chaung ... ... Total ...	121 29 26 13 9 2,298	... ... 30 45 25 250	 111	The Conservator inspected 20 girdled teak trees out of 26 girdled in the Empathwè and Nandetaung chaungs, and 10 girdled teak trees in the north Natchaung forests out of 121, also 18 out of 30 girdled padauk trees on the Tikopchaung.

APPENDIX D.

Pegu Circle.

Statement of Teak and other Trees Girdled and Forest Work done in season 1885-86.

Division.	Name of range.	Name of Revising Officer.	Forest district.	Locality.	Teak.	Pyinma.	Padauk.	Counted by Revising Officer.	Remarks.
Prome.	Nawin	Maung Pe, Forest Ranger.	South Nawin ...	On the head waters of the Gyinsaing chaung	372	...	...	...	
				Between the Kyauktalôn chaung and Yènganmyaung	128	...	...	...	
				Total ...	500	...	...	...	
	Myede	Maung Shwe Thaung, Forest Ranger.	Mindun	On the Thadunchaung	326	...	...	...	
				East of the Pathichaung	258	...	...	...	
				West of the Pathichaung	177	...	...	...	
				North of the Hlawachaung	520	...	...	...	
				South of the Hlawchaung	219	...	...	...	
				Total ...	1,500	...	...	...	
				Total Prome Division ...	2,000	...	...	...	In unreserved forests.
Tharrawaddy.	Bilin	Maung We ...	.....	Kôn-Bilin, Bawbin, Taungnyo, Shwele — Outside reserves	861	...	...	...	
	Taungnyo ..	Maung Kale ...			750	...	...	...	
	Bawbin	Maung Kale & Ne U			2,259	...	...	...	
	Shwele	Maung Aung ...			1,100	...	...	...	
				Total ...	4,970	...	...	...	Outside reserves.
	Bilin	Mr Hoghton and Maung We.	Thônze	Thônzè reserve — Compartment No. 1 510					
				Compartment No. 9 275					
				Compartment No. 10 101					
				Compartment No. 11 110	1,004	...	...	...	
	Bilin	Mr. Hoghton ...	Môkka	Môkka reserve — Compartment No. 11 68					
				Compartment No. 12 84					
				Compartment No. 13 50	202	...	...	...	
				Total ...	1,206	...	...	...	Inside reserves.
				Total Tharrawaddy Division ...	6,176	...	...	...	
Rangoon.	Pegu	Mr. T. H. Aplin ...	Upper Zamayi reserve.	*Karen area No. I*— North of Sawmawlaw chaung	103	...	...	...	
				Between Sawmawlaw chaung and Wapyumyaungchaung	67	...	...	...	
				South of Wapyumyaung chaung	80	...	...	...	
	Paunglin ..	Not revised ...	Wadale Kyaungya ..	*Karen area No II*— East of Kyetchaunggyichaung	145	...	...	...	
				Between Kyetchaunggyi chaung and Tabyèchaung	105	...	...	...	
				Along the banks of the Maung Pa So chaung	...	173	...	...	
				Ditto ditto Ngetgyakyatchaung	...	85	...	...	
				Ditto ditto Kyaungyachaung	...	32	...	...	
				Ditto ditto Kobyaungchaung	...	10	...	...	
				Total Rangoon Division ...	500	...	...	...	Inside reserves.
						300	...	...	Outside reserves.

TOUNGOO.	Mr. F. W. Thellusson, Deputy Conservator of Forests.	Maung Yaing, Ranger.	Swa valley ...	At the source of the Ngagyigwa chaung, between Myaungtha chaung and Taunggya chaung and the north of Myaungtha and south of Taunggya chaung.	309	...	...	...
				South of Swa chaung below Amatgyigôn village and between Swa chaung and Bizauk chaung.	221	...	...	...
				South of Swa chaung between Bizauk and Swa chaungs and south of Saingwa village.	266	...	...	...
				On the east and west of Uyinhmu chaung	133	...	...	...
				Between Swa chaung and Sinvomyaung	6	...	...	...
				Between Sinyo Myaung and Baungduk stream	14	...	...	...
				Between Baungduk stream and Swa chaung	4	...	...	...
				On the east and west of the Thamase chaung	32	...	...	...
				On the north of Swa chaung below Banbwebin village	15	...	...	...
				Between Myaungtha and Htagyibauk chaungs	22	...	...	...
				On the south of Swa chaung and on the east and west of Singyan chaung ...	28	...	...	...
				On the north of Swa chaung between Ayodaung village and Tagyibauk chaung.	56	...	...	...
				On the north of Swa chaung between Tagyibauk and Myôkadaw chaungs ...	104	...	...	...
				On the north of Swa chaung between Myôkadaw and Myaungtha chaungs ...	204	...	...	...
				On the south of Swa and below Myaungtha chaungs	46	...	...	...
				Between east of Sinwin and Swa chaungs	28	...	...	...
				On the south of Swa chaung near Kyauksaung village	12	...	...	...
				Total ...	1,500	...	...	...
			Myohla valley ...	Between Mézali chaung and Daunglangya chaung	233	...	...	...
				Between Mézali and Thèbyu chaungs	25	...	...	...
				On the north and south of the Myohla chaunggyi	179	...	...	...
				Ditto ditto chaungale	171	...	...	...
				Below Myohla chaung and on the west of the Sittang river	64	...	...	...
				On the north and south of the Sinthe chaung	209	...	...	...
				Ditto ditto Tittadu chaung	69	...	...	...
				Ditto ditto Chaungzauk chaung	125	...	...	...
				Between Ngakônma chaung and Sattha myaung and on the south of Satthamyaung.	25	...	...	...
				Total ...	1,100	...	...	...
			Lônyan and Sabyin valleys.	On the Lônyan and Sabyin chaungs, &c., little below their mouths, and on the east and west of the Lônyan chaung.	269	...	...	...
				On the east of Lônyan chaung between Thèbyu chaung and Thanbayamyaung.	195	...	...	...
				On the east and west of Laidagyi chaung	123	...	...	...
				On the south of Lônyan chaung between Yanônmyaung and Hpa-aingpyè chaung	96	...	...	...
				Between Hpa-aingpyè chaung and Yayè chaung	270	...	...	...
				On the west of Thèbyu chaung	239	...	...	...
				Above Thèbyu chaung and on the south bank of Lônyan chaung	8	...	...	...
				Between Sabyin chaung and its tributary below Memyaung and Ye E. Myaung, and on the east and west of Sabyin chaung near to Lônyan village.	115	...	...	...
				On the north and south of Kanwè chaung	88	...	...	...
				Between Ye E. Myaung and Ma-udôn chaung	3	...	...	...
				Between Ma-udôn and Thapanmyaung	191	...	...	...
				Between Thapanmyaung and Letkatkwè chaung	50	...	...	...
				Between Letkatkwe and Simyaung	143	...	...	...
				Between Sabyin chaung and its tributary and on the east of Myaungtha chaung.	62	...	...	...
				Below Thetkègyin village and on the north and south of Sabyin chaung ...	28	...	...	...
				Between Myaungtha and Sattit chaungs	90	...	...	...
				Between Sattit and Simyaung chaungs	46	...	...	...
				Between Simyaung chaung and Sabyin chaung	53	...	...	...
				On the south of Sabyin chaung and its tributary east of Magu chaung and west of Natsin chaung.	205	...	...	...
				Carried over ...	2,274	...	...	...
				Carried over ...	13,550	300	...	...

Statement of Teak and other Trees Girdled and Forest Work done in season 1885-86—(concluded).

Division.	Name of ranger	Name of Revising Officer	Forest district.	Locality.	Teak.	Pyinmya.	Padauk.	Counted by Revising Officer.	Remarks.
Toungoo—concluded.		Mr. F. W. Thelluson, Deputy Conservator of Forests.		Brought forward ...	13,550	300	...	...	
				Brought forward ...	2,274	.	...	...	
		Maung Yaing, Ranger—*concld.*	Lônyan and Sabyin valleys—*concluded*	Between Yingan chaung and Kyaungsomyaung	57	..	...	...	
				Between Yingan chaung and Pyaunggyithemyaung	277	..	...	...	
				Between Pyaunggyithemyaung Aingthomyaung	83	...	...	...	
				Between Aingthomyaung and Yingan chaung	22	...	...	...	
				Between Yingan chaung and Ngaywemyaung	10	...	...	..	
				Between Ngaywemyaung and Sinmyaung chaung	29	...	...	...	
				On the south of Yingan chaung and north-west of Thaywemyaung ...	48	...	...	...	
				Total ...	2,800	...	...	...	
		Maung Ba O, Ranger	Kabaung valley ..	Between Kabaung chaung and Thabyè chaung	55	...	...	...	
				On the Gnettawmyaung and its tributary of Thabyè	20	...	...	..	
				On the source of Shwethinmyaung	50	...	...	...	
				Between Pyahmyaung and Thabyè chaung	40	...	...	...	
				Between Gonminmyaung and Pyatmyaung	45	...	...	...	
				On the west "Kyaw" of Thabyè chaung	40	.	...	...	
				At the source of Gwè chaung	250	...	...	...	
				Between Kin chaung and Wanmyaung	105	..	.		
				Between Wanmyaung and Myaungshe and at the mouth of Putalin chaung...	25	...	.	.	
					40	..	.	.	
				Between Sin chaung and Puta in chaung	51	...	..	...	
				Between Putalin chaung and Memyaung	50	..	..	...	
				Between Sin chaung and Aunglaungmyaungyi	500	...	.	.	
				Between Aunglaungmyaungale and Sin chaung	229	...	.	...	
				Total ...	1,500	..	..	.	
				Total Toungoo Division ...	6,900	...		..	Outside reserves.
				Total Pegu Circle ...	15,576	300	...	...	
				GRAND TOTAL LOWER BURMA ...	17,874	300	250	111	

APPENDIX E.

Statement of Outturn of Foreign Timber for the five years 1881-82 to 1885-86.

Name of forest.	1881-82.				1882-83.				1883-84				1884-85.					
	Logs.	Tons	Pieces.	Tons.	Logs.	Tons.	Pieces	Tons.	Logs	Tons.	Pieces	Tons.	Full-sized logs.	Tons	Under-sized logs.	Tons	Pieces.	Tons.
Karenni	52,235	78,352	1,069	962	58,518	77,777	3,353	2,682	78,539	89,629	4,879	2,297	86,099	76,186	10,167	6,200	7,135	3,600
Gyaingtaung	7,022	10,533	515	360	6,840	8,300	2,955	1,964	15,063	17,171	8,295	4,977	9,822	8,456	861	516	3,766	1,506
Maunglôngyi..	7,455	11,182	476	380	5,668	8,502	1,316	1,053	3,816	5,350	980	688	15,752	15,000	197	105	2,660	1,454
Thaungyin	14,282	14,282	5,157	3,610	24,092	24,092	6,614	2,519	29,876	34,058	16,365	9,819	24,460	21,771	9,010	5,400	21,436	8,780
Dagwin	6,028	9,042	838	587	7,096	7,096	366	299	3,735	4,660	203	121	6,641	6,000	4,496	2,970	326	160
Zimmè	..	...	...		...	...	...	...	...	..	..	...	...	...	..	...	...	...
Mêlaungthun	...	...	...		...	.	...	...	..	...	...	...	...	...	...	...	...	...
Mônpè	...	...	.		...	.	...	...	..	...	...	...	..	...	...	...	...	...
Total ...	87,022	123,391	8,055	5,899	102,214	129,315	14,604	11,289	131,029	150,868	30,722	18,592	141,477	127,412	24,731	15,191	35,323	15,500

Statement of Outturn of Foreign Timber for the five years 1881-82 to 1885-86—(concluded).

Name of forest	1885-86						Remarks		
	Full sized logs	Tons	Under-sized logs	Tons	Pieces	Tons.		Increase per cent	Decrease per cent.
Karenni	69,413	65,860	2,357	1,415	4,002	3,000	*Karenni*—		
							Full sized logs		19
							Under-sized logs		77
							Pieces		44
Gyaingtaung	9,271	8,577	826	500	1,388	1,000	*Gyaingtaung*—		
							Full-sized logs		6
							Under-sized logs		4
							Pieces		63
Mainglôngyi	10,730	10,608	281	130	1,502	990	*Mainglôngyi*—		
							Full sized logs		32
							Under sized logs	43	..
							Pieces		43
Thaungyin	10,533	9,768	2,177	1,400	5,182	2,600	*Thaungyin*—		
							Full sized logs		57
							Under-sized logs		77
							Pieces		76
Dagwin	3,885	4,067	1,199	1,000	72	50	*Dagwin*—		
							Full sized logs		31
							Under-sized logs		73
							Pieces		78
Zimmè	3,469	3,145	713	500	1,106	650	*Zimmè*— Full sized logs, Under-sized logs, Pieces	These forests have not been worked before this official year as separate forests, and hence no data regarding their outturn is forthcoming	
Mèlaungthun	1,444	1 473	109	80	443	280	*Mèlaungthun*— Full sized logs, Under-sized logs, Pieces		
Monpè	8	6	..	..	..	..	*Mônpè*— Full-sized logs, Under-sized logs, Pieces		
Total	108,753	103,504	7,662	5,025	13,695	8,570			

APPENDIX F.

Statement showing the Exports of Timber and other Forest Produce from Moulmein during the year 1885-86.

Articles and countries to which exported.	Denomination.	Quantity.	Value.
			Rs.
Wood, teak—			
To United Kingdom ...	C. tons.	20,169	23,05,700
„ Malta ...	„	414	43,690
„ Spain—Cadiz ..	„	472	51,487
„ Egypt—Port Said ...	„	2,682	3,00,068
„ Mauritius ...	„	665	29,894
„ Ceylon ...	„	74	3,694
„ Straits Settlements ...	„	19	775
„ Bengal—Calcutta .	„	15,639	12,31,945
„ Bengal—Other ports ...	„	371	22,597
„ Bombay—Bombay ...	„	49,279	32,63,244
„ Madras—Madras ...	„	7,895	5,54,514
„ Madras—Other ports ...	„	5,549	2,78,022
„ provincial ports ...	„	1,190	1,01,429
„ Pondicherry ...	„	876	52,846
„ Karikal ...	„	6	235
Total ...		105,240	83,09,160
Other timber—			
To Bengal—Calcutta ...	Tons.	2,008	1,17,013
„ Bengal—Other ports ...	„	48	2,503
„ Bombay—Bombay ...	„	566	50,477
„ Madras—Madras ...	„	75	6,290
„ provincial ports ..	„	494	14,674
Total ...		3,211	1,90,957
Manufactures of teak shingles—			
To Mauritius ...	No.	1,729,750	22,487
„ Straits Settlements ...	„	160,000	2,375
„ Bengal—Calcutta	„	672,750	11,791
„ provincial ports	„	1,497,000	19,732
Total ...		4,059,500	56,385
Teak crooks—			
To provincial ports ...	Value	...	306
Teak staves—			
To Colombo	Value.	...	14,977
Teak ventilators—			
To Egypt—Port Said	Value.	...	1,871
Junglewood ventilators—			
To United Kingdom	Value.	...	942
„ Malta ...	„	...	994
„ Egypt—Port Said ...	„	...	2,995
Total ...		...	4,931
Railway plant and rolling-stock materials for Construction—Teak railway keys—			
To Bengal—Calcutta ...	Cwt.	5,234	11,378
„ Bombay—Bombay. .	„	5,294	14,764
Total ...		10,528	26,142
Gums and Resins, Cutch and Gambier—			
To provincial ports ...	Cwt.	6	112
Oils, Wood—			
To Madras—Madras ...	Gallons.	240	120
„ Madras—Other ports ...	„	256	210
„ provincial ports ...	„	112	70
Total ...		608	400
GRAND TOTAL .		...	86,05,241

APPENDIX G.

Summary of Revenue of the different Divisions during 1885-86.

Budget head receipts.	Salween division.	Kado division.	South Tenasserim division.	East Salween division.	West Salween division.	Ataran division.	Direction.	Mergui division.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—									
a. Timber ...	20,527 10 11	.....	28,826 6 3	1,67,317 10 5	24,965 0 0	55,375 12 0	.....	.....	2,97,012 7 7
b. Firewood and charcoal ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
c. Bamboos ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
d. Sandal-wood ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS—									
a. Timber ...	2,649 6 0	.....	6,432 0 3	1,653 5 0	447 15 0	12,584 5 0	.....	3,724 10 0	27,491 9 3
b. Firewood and charcoal ...	14 8 0	.....	0 8 0	.....	.....	23 8 0	.....	13 0 0	51 8 0
c. Bamboos ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
d. Grazing and fodder grass ...	.....	.....	.....	.....	.....	.....	.....	6 0 0	6 0 0
e. Other minor produce ...	88 0 0	.....	925 0 0	.....	.....	40 0 0	.....	708 0 0	1,761 0 0
III.—CONFISCATED DRIFT AND WAIF WOOD ...	.....	43,847 8 0	0 8 0	.....	.....	.....	.....	314 0 0	44,162 0 0
IV.—REVENUE FROM FORESTS NOT MANAGED BY GOVERNMENT—									
a. Duty on foreign timber and other forest produce ...	.....	25,105 13 6	.....	.....	.....	.....	.....	.....	25,105 13 6
b. Revenue from shared and private forests ...	.....	...	...	.....	.....	.....	.....	.....	.....
V. MISCELLANEOUS—									
a. Fines and forfeitures ...	1,685 5 0	.....	.....	.....	.....	60 0 0	.....	.....	1,745 5 0
b. Refunds ...	.....	0 3 10	.....	.....	1 4 0	.....	5 1 4	.....	6 9 2
c. Other sources ...	29 11 3	15,842 9 6	5,707 4 0	.....	.....	321 0 0	.....	.....	21,900 8 9
Total Receipts ...	24,994 9 2	84,796 2 10	41,891 10 6	1,68,970 15 5	25,414 3 0	68,404 9 0	5 1 4	4,765 10 0	4,19,242 13 3

APPENDIX G.

Summary of Expenditure of the different Divisions during 1885-86.

Budget heads.	Salween division.	Kado division.	South Tenasserim division	East Salween division.	West Salween division.	Ataran division.	Direction.	Mergui division.	Total.
A.—CONSERVANCY AND WORKS.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P	Rs. A. P.
I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—									
a. Timber	12,149 0	.....	16,905 14 0	92,475 0 1	19,893-13 0	30,918 1 1	.....	.....	1,72,342 5 2
b. Firewood and charcoal	.....	.....	.....	.....	.....	.....	.....	.....	.....
c. Bamboos	.....	.....	.....	.....	.....	.....	.....	.....	.....
d. Sandal-wood	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	.....	.....	.....	.....	.....	.....	.....	.....
II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS	.....	.....	.....	.....	.....	4 0 0	.....	.....	4 0 0
III.—CONFISCATED, DRIFT, AND WAIF WOOD	.....	27,940 7 1	22 0 0	.....	.....	.....	.....	156 8 0	28,118 15 1
IV.—REVENUE FROM FORESTS NOT MANAGED BY GOVERNMENT—									
a. Duty on foreign timber and other forest produce	.....	7,471 14 9	.....	.....	.....	.....	.....	.....	7,471 14 9
b. Revenue from shared and private forests	.....	.....	.....	.....	.....	.....	.....	.....	.....
V.—RENT OF LEASED FORESTS AND PAYMENTS TO SHAREHOLDERS IN FORESTS MANAGED BY GOVERNMENT	.....	.....	.....	.....	.....	.....	.....	.....	.....
VI.—LIVE-STOCK, STORES, TOOLS AND PLANT—									
a. Purchase of cattle	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Feed and keep of cattle	1,443 5 0	.....	.....	351 11 10	332 0 0	592 0 0	.....	.....	2,719 0 10
c. Stores, tools and plant	92 0 0	1,064 6 1	48 8 0	310 7 10	148 10 0	136 8 0	.....	.....	1,800 7 11
VII.—COMMUNICATIONS AND BUILDINGS—									
a. Roads and bridges	.....	.....	.....	.....	.....	2 0 0	.....	.....	2 0 0
b. Buildings	71 12 0	3,370 0 3	5 12 0	1,698 9 0	.....	15 0 0	.....	26 0 6	5,187 1 9
c. Other works	.....	1 8 0	35 0 0	.....	.....	.....	.....	.....	36 8 0
VIII.—DEMARCATION, IMPROVEMENT, AND EXTENSION OF FORESTS—									
a. Demarcation	45 15 0	.....	434 13 0	.....	534 2 6	56 2 4	.....	.....	1,071 0 10
b. Compensation for land and rights	.....	.....	.....	.....	.....	.....	.....	.....	.....
c. Surveys and working-plans	63 12 9	.....	.....	2 0 0	.....	30 0 0	.....	.....	95 12 9
d. Plantations	4 3 0	.....	.....	578 14 0	2,175 4 10	271 2 3	.....	724 1 3	3,753 9 4
e. Protection from fire	.....	.....	.....	2,665 14 6	1,281 9 1	993 4 8	.....	.....	4,940 12 3
f. Other works	.....	.....	86 8 0	.....	.....	.....	.....	.....	86 8 0
IX.—MISCELLANEOUS—									
a. Refunds	50 0 0	25 4 0	.....	.....	.....	.....	.....	.....	75 4 0
b. Law charges	.....	500 0 0	.....	.....	.....	.....	.....	.....	500 0 0
c. Other charges	480 2 9	396 12 0	107 12 6	10 0 0	30 0 0	43 0 0	.....	38 0 0	1,105 11 3
Total A.—Conservancy and Works	14,400 11 6	40,770 4 2	17,646 3 6	98,092 2 3	24,395 7 5	33,061 2 4	.....	944 9 9	2,29,310 15 11
B.—ESTABLISHMENTS.									
I.—SALARIES—									
a. Conservators	.....	.....	.....	.....	.....	.....	18,000 0 0	.....	18,000 0 0
b. Superior officers	6,600 0 0	4,880 10 3	7,800 0 0	6,600 0 0	.....	3,000 0 0	.....	.....	28,880 10 3
c. Subordinate forest and depôt establishments	408 0 0	6,686 4 0	1,298 1 3	2,451 1 7	1,802 0 2	2,119 4 6	.....	600 0 0	15,564 11 6
d. Office establishments	2,570 13 6	5,575 0 0	1,642 6 0	644 2 3	588 0 0	544 0 0	4,959 8 0	.....	16,523 13 9
e. Deputation and special allowances	.....	.....	.....	.....	.....	.....	.....	.....	.....
II.—TRAVELLING ALLOWANCES—									
a. Conservators	.....	.....	.....	.....	.....	.....	1,345 13 1	.....	1,345 13 1
b. Superior officers	1,139 12 0	693 14 0	1,635 1 6	1,750 10 0	.....	1,025 14 0	.....	.....	6,245 3 6
c. Subordinate forest and depôt establishments	9 0 0	240 0 0	83 12 0	323 0 0	716 6 0	209 0 0	.....	.....	1,581 2 0
d. Office establishments	.....	.....	21 4 0	.....	11 4 0	79 4 0	.....	.....	111 12 0
III.—CONTINGENCIES—									
a. Stationery	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Carriage of tents and records	.....	.....	.....	.....	.....	.....	.....	.....	.....
c. Rents, rates, and taxes	32 9 0	22 13 6	.....	.....	.....	.....	.....	.....	55 6 0
d. Pay of police guards	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Official postage	62 4 0	61 2 6	20 0 0	.....	.....	.....	60 0 0	.....	223 6 6
f. Sundries	254 0 0	82 11 0	63 11 0	53 14 0	.....	85 8 0	132 8 0	.....	672 4 0
Total B.—Establishments	11,076 6 6	18,263 6 9	12,564 3 9	11,822 11 10	3,117 10 2	7,062 14 6	24,497 13 1	600 0 0	89,204 2 7
GRAND TOTAL OF EXPENDITURE	25,477 2 0	59,033 10 11	30,210 7 3	1,09,915 5 1	27,513 1 7	40,124 0 10	24,497 13 1	1,744 9 9	3,18,515 2 6

APPENDIX. H.

TENASSERIM CIRCLE.

Number of Logs imported by the principal Thitgaunge during the year 1885-86.

No.	Names.	Number of logs
1	Ko Taw A	17,684
2	Maung Pan	6,354
3	Ko Lu Gale	5,312
4	Maung Kyi	5,079
5	Ko Baik	3,490
6	Ko Aung	2,541
7	Ko Ke	2,508
8	Ko Tha Hnyin	2,502
9	Maung Shwe Le	2,455
10	Tsa Taga Nu	2,283
11	Maung Bwa	1,892
12	Ko Mo	1,870
13	Maung Shwe Po	1,848
14	Ko Pôn	1,735
15	Ko Khine	1,599
16	Maung Po O	1,587
17	Maung Nat	1,030

APPENDIX I.

TENASSERIM CIRCLE.

List showing the names of the principal Exporters of Teak from the 1st April 1885 to 31st March 1886.

Name of firm.	Tons.	Remarks
Babu Bulub Dass	15,364	
Strang Steel and Co	13,027	
Findlay Bodeker and Co.	12,721	
Aga Syed and Co.	10,786	
Bombay Burma Trading Corporation, Limited	9,817	
Fouear and Co.	7,969	
Mohr Brothers and Co.	6,819	
Bugwan Dass	6,490	
Hadjes Mahomed Esoof and Co.	2,043	
Abdool Majeed and Co.	1,295	
Total	86,281	

APPENDIX J.

TENASSERIM CIRCLE.

Statement showing the Sale Prices of Timber at Home during each month of the official year 1885-86.

Month		Sale price of timber per ton. From	Sale price of timber per ton. To	Freight per ton.	Remarks
		£. s. d.	£. s. d.		
April	1885	13 10 0	14 0 0		
May	"	...	...		
June	"	14 0 0	14 10 0		
July	"	...	...		
August	"	...	...		
September	"	13 15 0	14 0 0	37½ to 42½	Sailing vessels.
October	"	...	..	52½ to 62½	Steamers.
November	"	13 0 0	13 10 0		
December	"	...	...		
January	1886	12 10 0	13 0 0		
February	"	...	...		
March	"	...	...		

APPENDIX K.

PEGU CIRCLE.

Selling Rates in the Home Market for 1885-86—Churchill and Sims.

		£	s.	d.		£	s.	d.	
April	1885	11	10	0	to	16	0	0	Per load
May	"	12	10	0	to	16	0	0	
June	"	12	10	0	to	16	0	0	
July	"	12	10	0	to	16	0	0	
August	"	12	10	0	to	16	0	0	
September	"	12	10	0	to	16	0	0	
October	"	12	10	0	to	16	0	0	
November	"	12	10	0	to	16	0	0	
December	"	12	10	0	to	16	0	0	
January	1886	12	10	0	to	16	0	0	
February	"	12	10	0	to	16	0	0	
March	"	12	10	0	to	16	0	0	

AXPENDIX L.

PEGU CIRCLE.

Annual Return of Jungle woods and Bamboos passed at the Government Timber Depôt and Pazundaung Revenue Station from 1st April 1885 to 31st March 1886.

Description of timber		Log	Total	Remarks	Rs	A	P	
Logs	Eng ...	2,448		Sold in the market at	8	1	4	per log.
	Pyingado ...	743		Ditto	9	3	8	
	Thayet ...	975		Ditto	5	9	7	
	Firewood ...	241	4,447	Ditto	10	4	7	
Boats ...	...	4	4	Ditto	160	0	0	per boat.
Bamboos	Hmyin ...	533,000		Sold in the market	162 8 0 to 248 12 0			per 1,000
	Kyathaung ...	381,200		Ditto	275 0 0 to 418 12 0			
	Tin... ...	159,000		Ditto	268 12 0 to 400 0 0			
	Talugu ...	14,200	1,087,400	Ditto	331 4 0 to 441 4 0			
GRAND TOTAL		...	1,091 851					

APPENDIX M.

PEGU CIRCLE.

Averages of Sales at Rangoon Central Depôt 1885-86.

Month.		Per ton. Rs.	A.	P.
April	1885	25	9	5
May	"	35	1	2
June	"	42	2	10
July	"	50	2	11
August	"	35	2	2
September	"	40	10	2
October	"	37	4	11
November	"	36	12	9
December	"	31	2	11
January	1886	36	8	1
February	"	33	13	6
March	"	41	0	5

APPENDIX N.

Extract from the Forest Day-book of the Conservator of Forests, Tenasserim Circle, showing the estimated number of Teak Trees based on countings during 1885-86.

Name of division.	Name of forest	Locality	Year of survey	By whom surveyed.	Number of tract surveyed	Teak. I	Teak. II	Teak. III	Teak. IV	Padauk I	Padauk II	Padauk III	Padauk IV	Area of tract.	Total of first three classes on 100 acres	Remarks.
Ataran Division.	Winyo	Wakachaung ..	1st February 1886 .	Colonel W. J. Sexton, Conservator of Forests	1	22	49	67	50	..	...	.	.	6·22 acres ..	2,218	A long, dragging path south of the Kawpawtichaung (sources of Wakachaung feeder of the Winyo) to the Hlazada path and thence west to crossing of Ôkahitkanchaung Mostly all III class teak of large size
	East Zamayi ...	Kyaruchaung teak tract between the road and stream	2nd February 1886 ..		2	2	2	44	12	...	.	...	.	2·06 acres ..	2,330	Ingyin and Anan also observed here.
	South Gwingalè .	Between the Empathwè and Nandataung chaungs, feeders of the Gwingalè chaung half a-mile east of the Kanni high road	4th February 1886 ..		3	17	39	49	30	..	..	.		4 71 acres ...	2,229	Many III class very large girdled trees all above seven feet girth
	Ditto .	East and west of the Ticokichaung feeder of the Gwingalè chaung	5th February 1886		4	.	.	..	..	5	1			21 acres ..	.	Two I class trees felled recently
	Ditto ..	East and west of sources of the Ticôkichaung.	Ditto .		5	.	..	..		5	5	4	1	24 acres .	58	Four girdled trees below 7½ feet girth, remainder 9 to 10 feet in girth
	Ditto .	Along the the Danôn path westward from the Ticôkichaung as far as the Kyauk pôn path.	6th February 1886 .		6	.	...	.	..	2	8	7	3	33·05 acres ...	51	Dry tree forest and bamboos interrupted by Ia forest in places and pônzos near the Kayaingtaw chaung
	North Natchaung .	Along the Tipopet path from its junction with the Natchaung guard road on the west to the Tôngwaing and Kyakatchaung village path on the east	9th February 1886 .		7	.	.	.		11	10	18	16	42·00 acres ...	93	Padauk stumps as numerous as I class trees
	South Dalè	Along the Kya In Tiwawthaw path from the crossing of the Tswa chaung feeder of Mêgitaw chaung southward to point on right bank of Notaskuchaung	11th February 1886		8	.	..	..	.		1	5		26 85 acres .	22	Stumps here and there
Salween Division	Pandaw	Along the Thacopepo cart track from the crossing of the Swebanchaung to Pandawmi village at the source of Pu Yea chaung.	11th March 1886 .		9	3	19	116	*	..				33 acres	418	* Through dry tree, forest abundant.
	Gyochaung .	Along dragging path from the Wavatarie kwin to the Hlaingbwe watershed at source of Tiducnaung	12th March 1886 .		10	2	7	8	†	...	..		...	11 acres .	154	† Stumps abundant, numerous.
	West Hlaingbwè ..	Along dragging path from the Tidu chaung watershed to the Quanta road and along same to the crossing of the Tiduchaung.	Ditto .		11	9	14	98	..	..	..	.		22 acres	482	
	Upper Gyochaung	By dragging path from the Wagôktawkwin, eastward to the Pagachaung source of Gyochaung.	13th March 1886 .		12	7	13	107	‡	..	1	.		27 acres ..	470	‡ Abundant